



# EXCERPT FROM THE PROCEEDINGS

---

OF THE  
EIGHTH ANNUAL ACQUISITION  
RESEARCH SYMPOSIUM  
WEDNESDAY SESSIONS  
VOLUME I

## **NATO Agency Reform**

Eugene Warner, U.S. Mission to NATO

**Published: 30 April 2011**

Approved for public release; distribution unlimited.

Prepared for the Naval Postgraduate School, Monterey, California 93943

Disclaimer: The views represented in this report are those of the authors and do not reflect the official policy position of the Navy, the Department of Defense, or the Federal Government.



ACQUISITION RESEARCH PROGRAM  
GRADUATE SCHOOL OF BUSINESS & PUBLIC POLICY  
NAVAL POSTGRADUATE SCHOOL

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>APR 2011</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2011 to 00-00-2011</b>	
4. TITLE AND SUBTITLE <b>NATO Agency Reform</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Department of State ,U.S. Mission to NATO,Washington,DC,20520</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>Presented at the Naval Postgraduate School's 8th Annual Acquisition Research Symposium, 10-12 May 2011, Seaside, CA.</b>					
14. ABSTRACT <b>The North Atlantic Treaty Organization (NATO) is an international security alliance that is also an acquisition organization with 14 separate Agencies that develop procure, or maintain systems for Alliance use. As part of its review of headquarters processes and development of a new Strategic Concept, the Secretary General has spearheaded an effort to reduce the number of Agencies and reform NATO's acquisition processes. The effort will change organizational structures, governance and delivery of common services for all acquisition efforts. This paper examines this reform effort from the standpoint of organizational change and its strategic management. It assesses the process of Agency Reform in the context of strategic change management and strategy formation. It also examines parallels from organizational restructuring of similar magnitude and intent from a policy and strategic standpoint. The examination finds that the academic literature matches well with NATO's efforts, as documented in its record of decisions and working papers in the Agency Reform effort, both in its success and shortcomings.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>52</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

The research presented at the symposium was supported by the Acquisition Chair of the Graduate School of Business & Public Policy at the Naval Postgraduate School.

**To request Defense Acquisition Research or to become a research sponsor, please contact:**

NPS Acquisition Research Program  
Attn: James B. Greene, RADM, USN, (Ret.)  
Acquisition Chair  
Graduate School of Business and Public Policy  
Naval Postgraduate School  
555 Dyer Road, Room 332  
Monterey, CA 93943-5103  
Tel: (831) 656-2092  
Fax: (831) 656-2253  
E-mail: [jbgreene@nps.edu](mailto:jbgreene@nps.edu)

Copies of the Acquisition Sponsored Research Reports may be printed from our website  
[www.acquisitionresearch.net](http://www.acquisitionresearch.net)



ACQUISITION RESEARCH PROGRAM  
GRADUATE SCHOOL OF BUSINESS & PUBLIC POLICY  
NAVAL POSTGRADUATE SCHOOL

## Preface & Acknowledgements

---

During his internship with the Graduate School of Business & Public Policy in June 2010, U.S. Air Force Academy Cadet Chase Lane surveyed the activities of the Naval Postgraduate School's Acquisition Research Program in its first seven years. The sheer volume of research products—almost 600 published papers (e.g., technical reports, journal articles, theses)—indicates the extent to which the depth and breadth of acquisition research has increased during these years. Over 300 authors contributed to these works, which means that the pool of those who have had significant intellectual engagement with acquisition issues has increased substantially. The broad range of research topics includes acquisition reform, defense industry, fielding, contracting, interoperability, organizational behavior, risk management, cost estimating, and many others. Approaches range from conceptual and exploratory studies to develop propositions about various aspects of acquisition, to applied and statistical analyses to test specific hypotheses. Methodologies include case studies, modeling, surveys, and experiments. On the whole, such findings make us both grateful for the ARP's progress to date, and hopeful that this progress in research will lead to substantive improvements in the DoD's acquisition outcomes.

As pragmatists, we of course recognize that such change can only occur to the extent that the potential knowledge wrapped up in these products is put to use and tested to determine its value. We take seriously the pernicious effects of the so-called “theory–practice” gap, which would separate the acquisition scholar from the acquisition practitioner, and relegate the scholar's work to mere academic “shelfware.” Some design features of our program that we believe help avoid these effects include the following: connecting researchers with practitioners on specific projects; requiring researchers to brief sponsors on project findings as a condition of funding award; “pushing” potentially high-impact research reports (e.g., via overnight shipping) to selected practitioners and policy-makers; and most notably, sponsoring this symposium, which we craft intentionally as an opportunity for fruitful, lasting connections between scholars and practitioners.

A former Defense Acquisition Executive, responding to a comment that academic research was not generally useful in acquisition practice, opined, “That's not their [the academics'] problem—it's ours [the practitioners']. They can only perform research; it's up to us to use it.” While we certainly agree with this sentiment, we also recognize that any research, however theoretical, must point to some termination in action; academics have a responsibility to make their work intelligible to practitioners. Thus we continue to seek projects that both comport with solid standards of scholarship, and address relevant acquisition issues. These years of experience have shown us the difficulty in attempting to balance these two objectives, but we are convinced that the attempt is absolutely essential if any real improvement is to be realized.

We gratefully acknowledge the ongoing support and leadership of our sponsors, whose foresight and vision have assured the continuing success of the Acquisition Research Program:

- Office of the Under Secretary of Defense (Acquisition, Technology & Logistics)
- Program Executive Officer SHIPS
- Commander, Naval Sea Systems Command
- Army Contracting Command, U.S. Army Materiel Command
- Program Manager, Airborne, Maritime and Fixed Station Joint Tactical Radio System





- Program Executive Officer Integrated Warfare Systems
- Office of the Assistant Secretary of the Air Force (Acquisition)
- Office of the Assistant Secretary of the Army (Acquisition, Logistics, & Technology)
- Deputy Assistant Secretary of the Navy (Acquisition & Logistics Management)
- Director, Strategic Systems Programs Office
- Deputy Director, Acquisition Career Management, US Army
- Defense Business Systems Acquisition Executive, Business Transformation Agency
- Office of Procurement and Assistance Management Headquarters, Department of Energy

We also thank the Naval Postgraduate School Foundation and acknowledge its generous contributions in support of this Symposium.

James B. Greene, Jr.  
Rear Admiral, U.S. Navy (Ret.)

Keith F. Snider, PhD  
Associate Professor



## Panel 3 – Acquisition Issues: A Global Context

---

Wednesday, May 11, 2011	
11:15 a.m. – 12:45 p.m.	<p><b>Chair: Alfred G. Volkman</b>, Director, International Cooperation, Office of the Under Secretary of Defense for Acquisition, Technology, &amp; Logistics</p> <p><b><i>The Impact of U.S. Export Control and Technology Transfer Regime on the Joint Strike Fighter (JSF) Project—A UK Perspective</i></b></p> <p>David Moore, Peter Ito, Stuart Young, Kevin Burgess, and Peter Antill, Cranfield University</p> <p><b><i>International Perspectives of the Impact of Export Control and Technology Transfer Regimes: The F/A-18 Case Study</i></b></p> <p>Raymond Franck, Ira Lewis, Bernard Udis, NPS</p> <p><b><i>NATO Agency Reform</i></b></p> <p>Eugene Warner, U.S. Mission to NATO</p>

**Alfred G. Volkman**—Director, International Cooperation for the Under Secretary of Defense (Acquisition, Technology, and Logistics). Mr. Volkman is responsible for establishing international Armaments cooperation policy, ensuring that policy is properly implemented, and engaging with U.S. allies and friends around the world to achieve closer cooperation.

Mr. Volkman has a long history in international cooperation beginning in the late 1970s when he negotiated the initial agreements with the United Kingdom that resulted in the cooperative development of the AV-8B Harrier Aircraft. In the early 1980s he served on the NATO Air Command and Control Systems team in Brussels, Belgium, where he was instrumental in shaping the international acquisition strategy for that program. Mr. Volkman has served in a variety of international staff positions for both the Department of the Navy and the Office of the Secretary of Defense.

Mr. Volkman has extensive acquisition experience. He began his civilian career as a contracting specialist and contracting officer with the Naval Air Systems Command and has served as both the Director of Contract Policy and Administration and the Director of Foreign Contracting in the Office of the Secretary of Defense.

Mr. Volkman has a Bachelor of Arts degree from Valparaiso University and a Master of Business Administration from George Washington University. He served as an officer in the United States Army from 1966 to 1969. His service included one year with the Military Assistance Command, Vietnam. He has received numerous awards and medals for distinguished performance throughout his military and civilian service.

Mr. Volkman is married and has three adult children.



# NATO Acquisition and Agency Reform

**Eugene Warner**—Strategist and Negotiator, U.S. Mission to NATO. As a strategist and negotiator, Mr. Warner's portfolio includes missile defense, cooperative missile defense efforts with Russia, and export control. He has extensive experience in systems engineering, acquisition, and program management with the Department of the Navy in AEGIS, STANDARD Missile, and Navy ballistic missile defense. He is currently pursuing a doctorate in project management with Capella University. [warneree@state.gov]

## Abstract

The North Atlantic Treaty Organization (NATO) is an international security alliance that is also an acquisition organization with 14 separate Agencies that develop, procure, or maintain systems for Alliance use. As part of its review of headquarters processes and development of a new Strategic Concept, the Secretary General has spearheaded an effort to reduce the number of Agencies and reform NATO's acquisition processes. The effort will change organizational structures, governance, and delivery of common services for all acquisition efforts. This paper examines this reform effort from the standpoint of organizational change and its strategic management. It assesses the process of Agency Reform in the context of strategic change management and strategy formation. It also examines parallels from organizational restructuring of similar magnitude and intent from a policy and strategic standpoint. The examination finds that the academic literature matches well with NATO's efforts, as documented in its record of decisions and working papers in the Agency Reform effort, both in its success and shortcomings.

## Introduction

The North Atlantic Treaty Organization (NATO) was the collective security guarantor of western democracies for over 50 years, from the end of World War II to the early 21<sup>st</sup> century. During that time, it developed acquisition and procurement practices to augment the equipment and materiel provided by member nations. The result was a collection of semi-autonomous organizations and Agencies developing or procuring the tools of collective security, ranging from logistic infrastructure to basic research and development in the sciences.

With the fall of the Soviet Union in 1991, NATO embarked on a continuing journey of strategic change as it shifted the focus of the collective security arrangement from containment of a common adversary to diverse missions such as anti-piracy, fighting terrorist elements in Afghanistan, and managing an ever-changing relationship with the Russian Federation. This change in mission strategy has generated a collective desire to restructure many support functions in the Alliance. With defense spending declining in most member nations, a strategic change in the structure of the acquisition and procurement infrastructure was seen as a promising avenue for savings, and in 2010, the Secretary General of NATO directed a reduction in the number of acquisition agencies from 14 to three.

This would represent a significant restructuring of NATO's support infrastructure. It also is being conducted in parallel with the implementation of a new Strategic Concept. The decision at the NATO Lisbon Summit was to continue with what had come to be known as Agency Reform. Given the strategic nature of change in the Alliance mission, it is reasonable to consider whether parallel strategic change management had been applied to the acquisition infrastructure. The success of the Strategic Concept will depend on NATO's



effectiveness in re-shaping its acquisition and procurement infrastructure, making the latter's implementation and comparison to similar efforts an important study. A natural first inquiry into such a comparison would begin with a research question such as the following:

*What strategic approaches does NATO employ in reforming its acquisition infrastructure?*

The question suggests that NATO leadership may be intentionally or unintentionally employing existing strategies and approaches for their restructuring effort. Should that be the case, the literature search will be correspondingly rich with comparison opportunities. While the main theme is organizational strategic change, the unique international and security aspects of NATO are expected to add some insight into strategic organizational change that may not be covered in the existing literature.

This paper begins with a review of selected seminal literature addressing strategy formation, strategic management, and organizational change. After some brief remarks regarding methodology, the focus narrows to reviewing the contemporaneous records on Agency Reform and noting the highlights of progress from June 2010 to March 2011. After this chronological review is a comparison and contrast with the extant literature on strategy formation, strategic management, and organizational change.

## **Seminal Literature Review**

The essence of the research question and its context imply literature roots in the nature of strategy and its relationship to the structure of an organization. Article and journal research focused on key words and phrases such as strategy formation, strategic management, change management, strategic development, and organizational development. From the research of the literature, it appears that the nature of NATO restructuring falls under the domains strategy formation, strategic management, and organizational development. Other domains could be constructed, but these three define a logical progression of strategy formation driving strategic management, which in turn drives organizational development, and much of the literature does appear to fall in these domains.

Most of the key works in these domains were developed between the mid-50s and 1985. Chandler's (1962) landmark work on the linkage between structure and strategy addressed all three domains in four case studies of DuPont, General Motors, Sears, and Standard Oil of New Jersey. Each of these organizations underwent major restructuring and pioneered some of the forms that are now common in their industry, such as the concept of the corporate office, decentralization, and ad hoc reorganization. Using extensive longitudinal research, Chandler shows how each of these corporations executed organizational development as a result of strategy formation processes and strategic management of the new structures. Chandler closes with a comparative analysis of these attempts that analyzes strategy needs with structural outcomes.

Chandler's key finding is the link between organizational strategy and structure, with the former driving the latter in the cases of Dupont, General Motors, and Standard Oil of New Jersey. Each of these companies expanded and diversified into different product lines after World War I and, in doing so, independently settled on what is now called the multi-divisional form of organizing. Instead of organizing around functions (e.g., engineering, manufacturing, logistics), the now-diversified companies organized around product lines, with each product division being a semi-autonomous entity responsible for its own operations, profits, and losses. Another paradigm shift was the invention of the general (or corporate) office, which took the place of executive committees. In the latter concept, line responsibility originated with the committee, who directly controlled field activities. The



corporate office concept introduced the concept of an executive body that relinquished line authority but worked with staff functions to control company-wide resources and strategy development.

Within NATO, one can see the multi-divisional structure in the organization of the headquarters and the Agencies. There are some important differences. While most NATO Agencies are organized around a specific product or service, there are several that fill purely functional roles, such as the Research and Technology Agency.

While Chandler firmly links strategy and structure, Child (1972) adds the element of strategic choice and its effect in strategy formation. Up to this point, strategy development theory had focused on the forces of technology, size of an organization, and structural variation. In reviewing the extant literature and theory, Child acknowledges the power of these forces; however, his analysis examines the internal forces of dominant coalitions in an organization and their power to shape strategy. Child notes that dominant coalitions may or may not be the same as an organization's leadership, illustrating the scenario where leadership strategic plans may result in a different intended strategy as the effects of dominant coalitions are factored into strategy formation (Child, 1972).

The impact of dominant coalitions cannot be overemphasized in an organization such as NATO, which is an inherently political organization with shifting coalitions. The Agencies that are subject to reform are themselves coalitions of subsets to NATO nations, some with significant legal and economic power bases. Child's model of strategic choice would appear to be a logical starting point in any study of a political organization's strategy formation and organizational change.

Strategic choice and its interplay with environment and dominant coalitions is the essence of Mintzberg's (1979) strategy-by-learning paradigm. Mintzberg makes explicit the idea of planned versus emergent strategies in addressing the strategy formation, organizational development, and strategic management domains. This research looks at the strategic arc of the U.S. escalation in Vietnam and the evolution of the German automaker Volkswagen during roughly the same time period (1950–1973). The case studies indicate periods of relatively stable strategic direction punctuated by changes in strategic direction, either by deliberate planning or through emergent and adaptive strategies. In both cases, there is a period of strategic drift ("groping") where bureaucratic inertia drives the enterprise and incremental strategy changes are the norm, often without regard to longer-term goals. Mintzberg also makes an explicit comment on the then-predominant form of strategy development (the Planning School) by indicating that strategy development isolated from implementation factors will almost always mean a strategy that is out of synchronization with the environment.

Mintzberg introduces the paradigm of strategy development as a learning exercise by the organization, as opposed to Chandler's concept of strategy as a planning activity by a corporate office. He elaborates on the ad hoc approach to strategy development ("adhocracy") in a longitudinal analysis of data from the National Film Board (NFB) of Canada. Mintzberg reviews some of the styles of strategy formation already referenced in related research (Mintzberg & Waters, 1985) and then focuses on an interpretation of historical data gathered from the NFB. Throughout its history, the NFB displays a number of approaches to strategy, from the entrepreneurial (in its early days) to the overarching umbrella type, where guidance was general and filmmakers had generous latitude for project selection. The article notes how the NFB periodically varied its strategic approach, primarily through grassroots initiatives that mostly represented an adhocracy (i.e., producers, directors, and technical specialists collaborating on individual projects and then



disbanding upon completion) instead of stable production units and linked functional organizations.

The value of this article is that it is a quantitative study of historical data showing a relationship between the external environment and the strategic actions of an organization. This is a departure from the other literature mentioned in this paper in that it has a distinct quantitative flavor in contrast to the theoretical and exploratory efforts documented in the other cited works. Mintzberg gathers and examines archival data on the number of films produced as well as sponsorship, type of film, and business context of the NFB. The history of NATO acquisition and its approaches have also varied throughout the years in response to the will of the Alliance members and the external environment. This article may be a useful comparison when a similar history of NATO acquisition is researched and documented.

Porter (1980) puts forward the idea of strategy as a position within an industrial arena with his 1980 book. This work extensively covers the three domains, articulating the “Five Forces” within any given industry market (power of suppliers, power of customers, barriers to entry of new competitors, threat of substitute products and services, and intra-industry rivalries) that drive a competitor in that industry to achieve a stable place in the market from which it can be successful. The book casts strategic management as adopting generic strategies consistent with the Position School of strategy development (e.g., cost leadership verses differentiation) and discusses strategic analysis and decision-making with the goal of an organization optimizing its position. The applications to NATO’s acquisition restructuring at first appear to be limited, since one could consider NATO a monopolistic player in the western security marketplace; however, it is important to note that NATO faces a quasi-rival in the European Union (EU) with respect to international security. Two of Porter’s Five Forces are barriers to entry of new competitors and threat of substitutes. The presence of the EU, and its aspirations, places NATO’s Agency Reform efforts as perhaps closer to Porter’s framework than it would be apparent on first inspection.

Table 1 summarizes the examination of the seminal literature, reviewing the domains addressed, the literature’s methodology, its research type, and the emergent paradigm from the seminal work.





**Table 1. Seminal Research in Organizational Strategic Change**

Author, Year	Domain	Methodology	Research Type	Paradigm
Chandler, 1962	<ul style="list-style-type: none"><li>• Strategy Formation</li><li>• Strategic Management</li><li>• Organizational Development</li></ul>	Longitudinal Study	Qualitative & Quantitative	Structure dictates strategy and vice-versa
Child, 1972	<ul style="list-style-type: none"><li>• Strategy Formation</li><li>• Organizational Development</li></ul>	Literature Review	Meta-Study of Existing Literature	Strategy as conscious choice vice reaction to environment
Mintzberg, 1978	<ul style="list-style-type: none"><li>• Strategy Formation</li><li>• Strategic Management</li><li>• Organizational Development</li></ul>	Longitudinal Study	Qualitative & Quantitative	Strategy as organizational learning
Porter, 1980	<ul style="list-style-type: none"><li>• Strategy Formation</li><li>• Strategic Management</li><li>• Organizational Development</li></ul>	Literature Review	Meta-Study of Existing Literature	Strategy as position within a marketplace
Mintzberg & Waters, 1985	<ul style="list-style-type: none"><li>• Strategy Formation</li><li>• Strategic Management</li></ul>	Longitudinal Study	Primarily Quantitative	Strategic change as a cyclic occurrence

Among the research domains one can see similarities among the seminal literature. Most rely on archival data and longitudinal study in arriving at their findings. This is perhaps not surprising if one subscribes to the idea that strategic change is rare and only implemented when forces dictate. The nature of those forces is where the real debates lie. The paradigms developed from these studies offer a researcher a wide variety of theoretical lenses through which to view structural change at NATO.

## Method

This study is exploratory in that it attempts to determine the strategic themes driving NATO's Agency Reform. The source documents are records from meetings and selected interviews. The source documents are not comprehensive, but they are selected for relevance to the overall strategic nature of the reform (e.g., decision sheets of significant meetings, presentations of primary subjects regarding reform options, directives from the Secretary General and senior NATO staff, and written remarks from nations). The written record of the decisions and the objective articulation of the alternatives and rationale are then compared to the literature of strategy formation and strategic management, from which one can assess the nature of NATO's strategic change. Source documents considered were generated between June 2010 and March 2011. During this time, there were three key meetings of either Defense Ministers (October 2010 and March 2011) or Heads of State

or Government (HoSG) (November 2010). At these points, the written record becomes stable, since reports at these meetings are a consensus agreement among nations.

Interviews were conducted sparingly. In a more comprehensive qualitative study, interviews with principal and minor actors would be significant sources. Since Agency Reform is current and ongoing, the actions are intensely political within NATO, and objective opinions can be difficult to find because many of the potential interviewees have significant equity in the outcome of the reform. The political nature of NATO and the Agency Reform process make for challenging analysis. They are subject to revision and clarification. Moreover, the record of decisions and working papers only tells a partial story, since informal conversations and meetings can add significant nuance and shading to the official record.

Another significant factor is the nature of NATO itself. It is primarily a mutual security organization, and the concern there is reasonable concern that this aspect may have more influence on reorganization than would be expected from theoretical constructs or results from research. Fortunately, the focus of reorganization is on the business aspects of NATO—acquisition, procurement, support, common services, and maintenance. Here there is congruity with the extant research on organizational change and strategic management. The primary drivers for change in NATO—normalization of structure, efficiencies in linkages and costs, and harmonization with NATO headquarters structures—are similar to reasons cited by commercial entities for strategic change (Chandler, 1962; NATO Secretary General Private Office, 2010). This aspect of NATO's reorganization makes it possible to address the stated research question with some confidence.

### **Context and Progress of NATO Agency Reform**

NATO's agency structure has steadily evolved over the 60-year history of the Alliance as its procurement, maintenance, and logistic needs have grown. Currently, there are 14 NATO Agencies in seven nations. Overall employment is 6,000 people, with a business volume of €10 billion. Approximately €8 billion is provided by nations participating in these agencies. Table 2 identifies the Agencies and describes their functions.





**Table 2. NATO Agencies**

Agency	Description	Business Function
Central European Pipeline Management Agency (CEPMA)	Manages petroleum pipelines for NATO use in central Europe	Support, Logistics
NATO Air Command and Control System Management Agency (NACMA)	Design, development, and deployment of next-generation NATO aircraft C2 system	Acquisition, Procurement
NATO Airborne Early Warning and Control Programme Agency (NAPMA)	Management of NATO airborne early warning aircraft and associated upgrades	Acquisition, Procurement, Support, Maintenance
NATO Alliance Ground Surveillance Management Agency (NAGSMA)	Development of NATO unmanned intelligence, surveillance, and reconnaissance aircraft	Acquisition, Procurement
NATO Battlefield Information, Collection and Exploitation System (BICES)	Development and procurement of battlefield intelligence networks	Acquisition, Procurement
NATO Communication and Information Systems Services Agency (NCSA)	Support and maintenance of deployed networks	Support, Maintenance
NATO Medium Extended Air Defence System Agency (NAMEADMSA)	Development, acquisition, and procurement of ground-based medium-range air defense system	Acquisition, Procurement
NATO Eurofighter and Tornado Management Agency (NETMA)	Management of Eurofighter and Tornado aircraft within NATO	Support, Maintenance
NATO Consultation, Command and Control Agency (NC3A)	Development, procurement, and technical research in command and control systems	Research, Acquisition, Procurement, Support
NATO Helicopter Management Agency (NAHEMA)	Management of NATO helicopter assets	Maintenance, Logistics
NATO Maintenance and Supply Agency (NAMSA)	Logistic support to NATO systems	Logistics
NATO Airlift Management Agency (NAMA)	Management of heavy fixed-wing airlift capability	Maintenance, Logistics
NATO Standardization Agency (NSA)	Standards development	Support
Research & Technology Agency (RTA)	Harmonization of Allies research and technology efforts	Research

Table 2 indicates that the NATO Agencies perform a mix of services in support of the NATO mission. Some, such as NACMA and NAGSMA, are focused on development of specific systems and capabilities and may have only limited influence on support, logistics, and maintenance. Others, such as NAMSA and CEPMA, have a heavy logistics focus, while Agencies such as NSA and RTA are functionally oriented.

Agency funding varies across the entities. It is important to note that not all 28 nations participate in all the Agencies, nor are all the Agencies equally supported by what is colloquially known as “common funding,” where all 28 nations make contributions to the NATO Security Investment Program (NSIP) to fund common needs. Funding is often determined by the governance structure of the Agency itself, which also varies depending on the participants and the legal/political framework adopted at Agency inception.

The Agencies function as virtually autonomous entities, managing their personnel and delivering services with little or no direction from NATO headquarters staff. They each have their own personnel, budget, and information technology systems. Some support separate contracting and legal services. Most have some form of a Board of Directors or

equivalent oversight body that directs the Agency from a strategic level. All have some reporting and responsibility link to the North Atlantic Council (NAC).

### **Summary of Agency Reform Initiative: June 2010–March 2011**

The subject of Agency Reform is not new. It had been discussed, often in conjunction with the NATO Command Structure (NCS) in Summit meetings and various Defense and Foreign Ministers' meetings over the last 10 years. The latest effort was given substantial support by the Secretary General in 2010. This section provides a summary of this effort from June 2010 to March 2011.

#### ***June 2010 Defense Ministers' Meeting—November 2010 Lisbon Summit***

The Secretary General described the essence of his intended Agency Reform and articulated the expected achievements: (1) maximum effectiveness and efficiency, (2) maximum sharing of support services, (3) improved governance, transparency, and accountability, (4) greater synergy among similar functions, and (5) savings (NATO Secretary General Private Office, 2010). Table 3 shows the Secretary General's initial portfolio construct of the three consolidated Agencies.

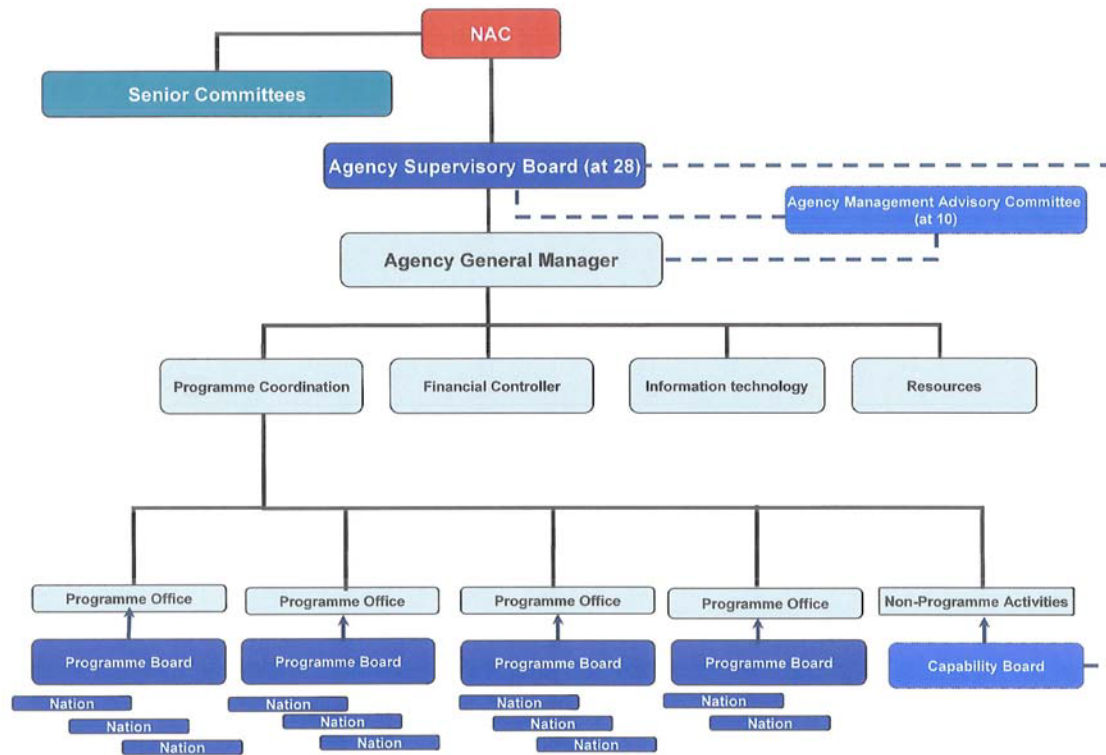
**Table 3. Consolidated NATO Agencies and Program Distribution**

Procurement	Support	Communications and Information
Research and Development	Transportation	Command structure support
Air Command and Control	Pipelines	Support to Operations
Airborne Early Warning	Weapon Systems	Intelligence Sharing
Alliance Ground Surveillance	Infrastructure	Cyber Security
Eurofighter and Tornado		
NATO helicopter for the 90s		
Medium Air Defense		
Standardization		

The original concept was for three Agencies rationalized along the lines of Procurement, Support, and Communications and Information Systems (CIS). Individual programs would initially be managed under the Procurement Agency and would eventually transition to the Support Agency. Upgrades to existing systems would involve a temporary transition back to Procurement and eventual repatriation back to Support once upgrades were tested and fielded. The original timetable indicated a decision by Defense Ministers on the basics of Agency Reform by their October 2010 meeting. A savings target of 20% was articulated.

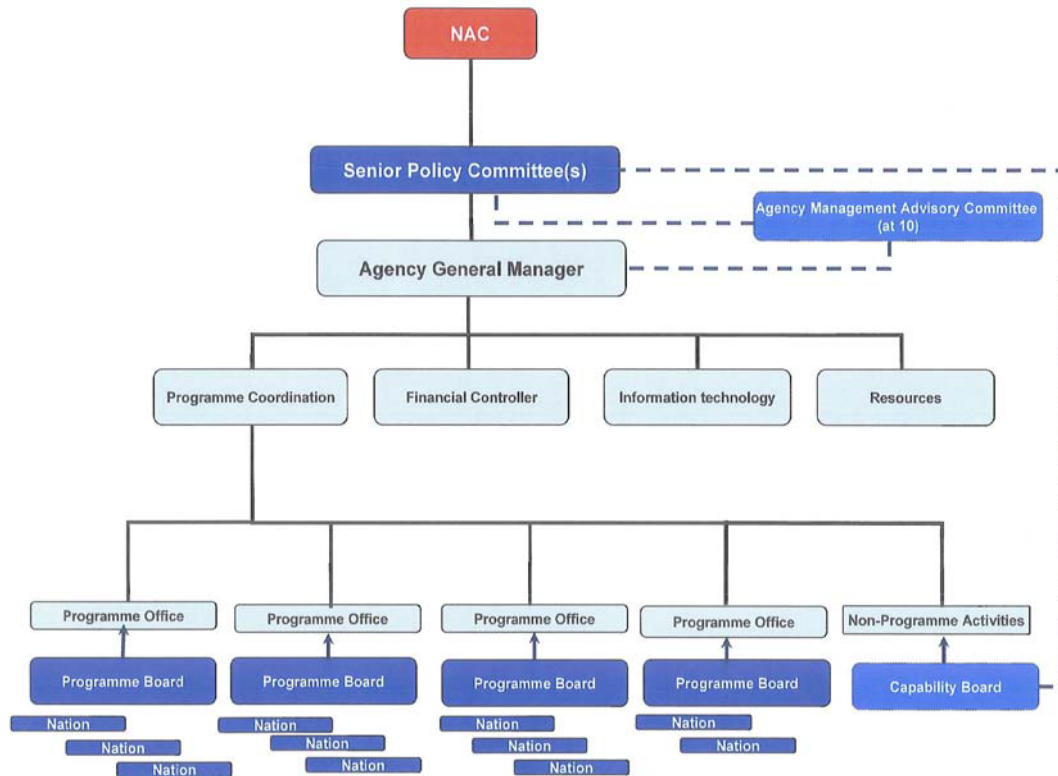
Activity on Agency Reform was minimal during the summer of 2010; however, in the fall, the Defense Policy and Planning Committee for Agency Reform (DPPC/AR) began to consider preliminary ideas and proposals from the NATO Agency Reform Team (NART). Records from the fall of 2010 indicate some concerns about meeting the Secretary General's October mandate given the complexity of the "as is" situation and emerging questions about the higher-level governance, particularly the desire to put the NAC in more direct control of the Agencies (DPPC/AR, 2010a). Through October the DPPC/AR and the NART developed governance frameworks as depicted in Figures 1, 2, and 3.





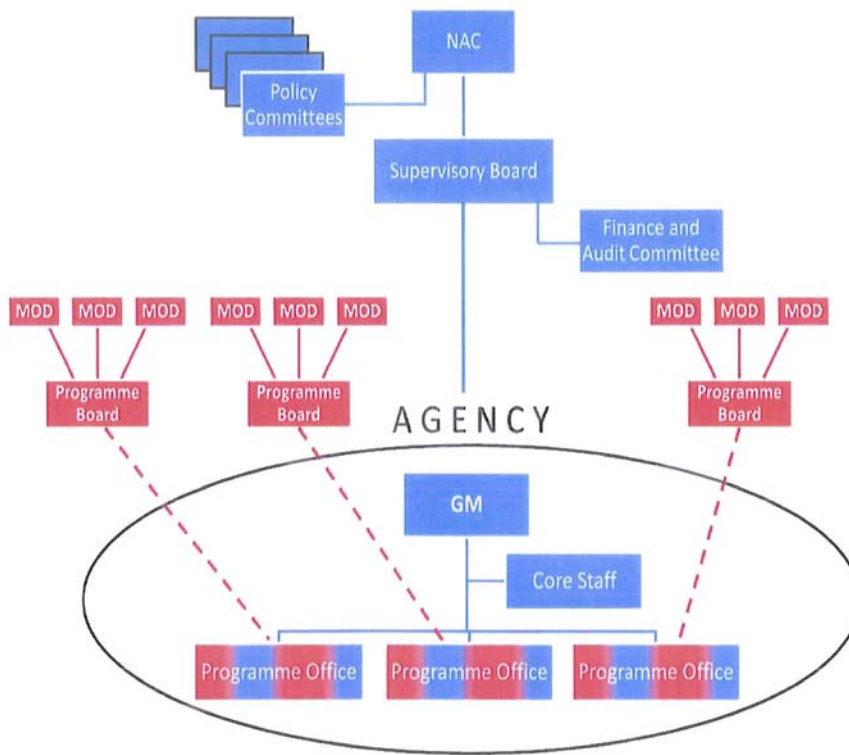
**Figure 1. Proposed Agency Governance Framework**  
(DPPC/AR, 2010c)

Figure 1 depicts overall NAC control through an Agency Supervisory Board (ASB) with representatives of the 28 Allies and a direct report Agency General Manager overseeing program coordination and the staff financial, information technology, and resource control functions. An Agency Management Advisory Committee with populated by senior NATO staff coordinates with the ASB and the General Manager. Individual programs report up through program coordination while their individual boards retain local governance of their respective programs.



**Figure 2. 1st Alternate Governance Framework (DPPC/AR, 2010c)**

Figure 2 is very similar to Figure 1, except that the existing Senior Policy Committee(s) replaces the ASB, where Allies are already represented. This option appears to use existing committees to perform an oversight role instead of organizing a new body to oversee Agency operations.



**Figure 3. 2nd Alternate Governance Framework**  
(DPPC/AR, 2010c)

Figure 3 is a variant of those structures depicted in Figures 1 and 2; however, here the program boards are shown in a coordination role instead of a direct report and line configuration. Here, the General Manager of the Agency is in control of the program offices while the program boards exercise some level of oversight. This would represent a significant shift in governance, replacing the program boards—existing stakeholders—with a newly hired General Manager.

#### ***Lisbon Summit Report—November 2010***

NATO opted for a three-Agency model consisting of Procurement, Support, and CIS, all supported by a Shared Services provider. Figure 4 is from the report to Heads of State and Government (HoSG) at the November Lisbon Summit (DPPC/AR, 2010e).

## Current and Future Agencies Structures

### 14 NATO Agencies Today

Central Europe Pipeline Management Agency (CEPMA)  
 NATO Air Command and Control System Management Agency (NACMA)  
 NATO Airborne Early Warning and Control Programme Agency (NAPMA)  
 NATO Alliance Ground Surveillance Management Agency (NAGSMA)  
 NATO Battlefield Information, Collection and Exploitation System Agency (BICES)  
 NATO Communication and Information System Services Agency (NCSA)  
 NATO Medium Extended Air Defence System Agency (NAMEADSMA)  
 NATO Eurofighter and Tornado Management Agency (NETMA)  
 NATO Consultation, Command and Control Agency (NC3A)  
 NATO Helicopter Management Agency (NAHEMA)  
 NATO Maintenance and Supply Agency (NAMSA)  
 NATO Airlift Management Agency (NAMA)  
 NATO Standardization Agency (NSA)  
 Research & Technology Agency (RTA)

Plus: NATO Undersea  
 Research Center (NURC)

Figure 1: As-is Situation

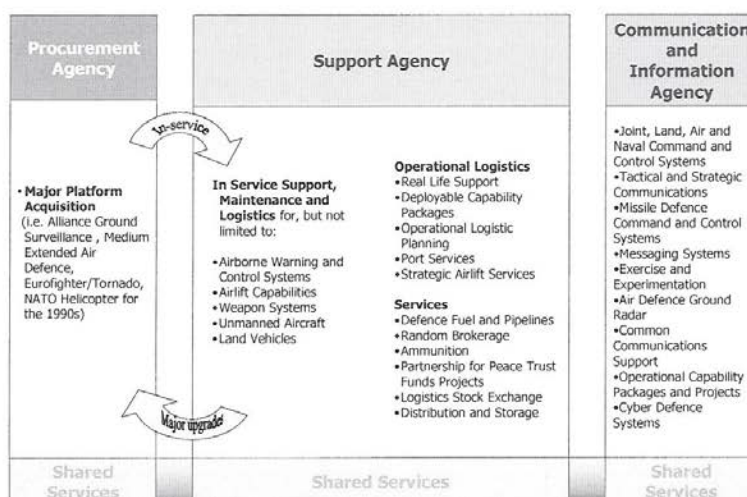


Figure 2: Structure Proposed at this Juncture

Figure 4. Conceptual View of the Three-Agency Construct (DPPC/AR, 2010e)

Figure 4 shows a more informed view of which functions would reside in the new Agencies and represents a progression in thought and detail over the Secretary General's original division articulated in Table 3. Shared Services clearly show the common linkage and expected efficiencies of vis-à-vis reduced redundancy in services. There is an interaction between the Procurement and Support Agencies represented by logical transitions between Procurement and Support, depending on the status (e.g., either "upgrade" or "in-service").

Governance was perhaps the most contentious of issues. Here, the differing nature, funding mechanisms, and legal frameworks of the Agencies became apparent, since it was



clear that no single governance structure could be agreed for all the Agencies and their programs. The Lisbon report indicated that detailed governance implementation will require further work before Agency governance as a whole could be rationalized. Figure 5 describes a governance model for the Shared Services and CIS Agencies, but as a practical matter, this would also serve for the Procurement and Support Agencies.



10

**Figure 5. Basic Governance Model Given at Lisbon Summit (November 2010)**  
(DPPC/AR, 2010e)

This model is very similar to Figures 1 and 2, showing program boards reporting through the Agency General Managers and ASB to the NAC. This model would apply to the CIS Agency from its inception. Application to the Procurement and Support Agencies was problematic because of the varied governance structures for these programs, although a close examination of Figures 1, 2, and 5 show little difference at the highest level of abstraction. The Agencies would report through some sort of intermediary board and liaise with the individual program boards for day-to-day oversight of the programs. Shared Services governance would be handled through the NATO Assistant Secretary General for Executive Management (ASG/EM).

Perhaps the major revelation in the Lisbon report was the recognition of “specific cases” that did not fit readily into the Procurement/Support/CIS paradigm. The RTA, BICES, and NSA qualified as specific cases and could be readily accommodated as exceptions. The RTA dealt with basic science, the BICES with unique battlefield intelligence, and the NSA with standards development. The nature of communications provision and support—already proposed as a new, consolidated agency—represented a unique challenge because its influence affected all CIS from military operations to headquarters services. Because of this relation to the NCS, it was identified as a unique case requiring careful scrutiny. The

HoSG directed NATO to move forward with their Agency Reform agenda and report their progress to Defense Ministers in March and June 2011.

### ***Post-Lisbon Activities***

After Lisbon, attention turned to the business case analyses of the three Agencies and four specific cases. The DPPC/AR and NART also considered the qualifications for the Agency General Manager (DPPC/AR, 2010b; DPPC/AR, 2010d), emphasizing that the new General Manager would need to possess expertise in organizational change management.

Initial business cases were put forward in February 2011. From contemporary documents, it appears that the development of the business cases raised a number of questions that had not been considered prior to the Lisbon Summit. The development teams indicated the following:

The cases are incomplete but provide important additional layers of detail on the “as is situation” and offer options for the “to be situation”. More importantly they raise questions in a number of important areas, such as the issues need to be addressed by nations sooner than later in order to identify the way forward which best achieves the objectives set out in our report to the Heads of State and Government in Lisbon (PO(2010)0159). (DPPC/AR, 2011c)

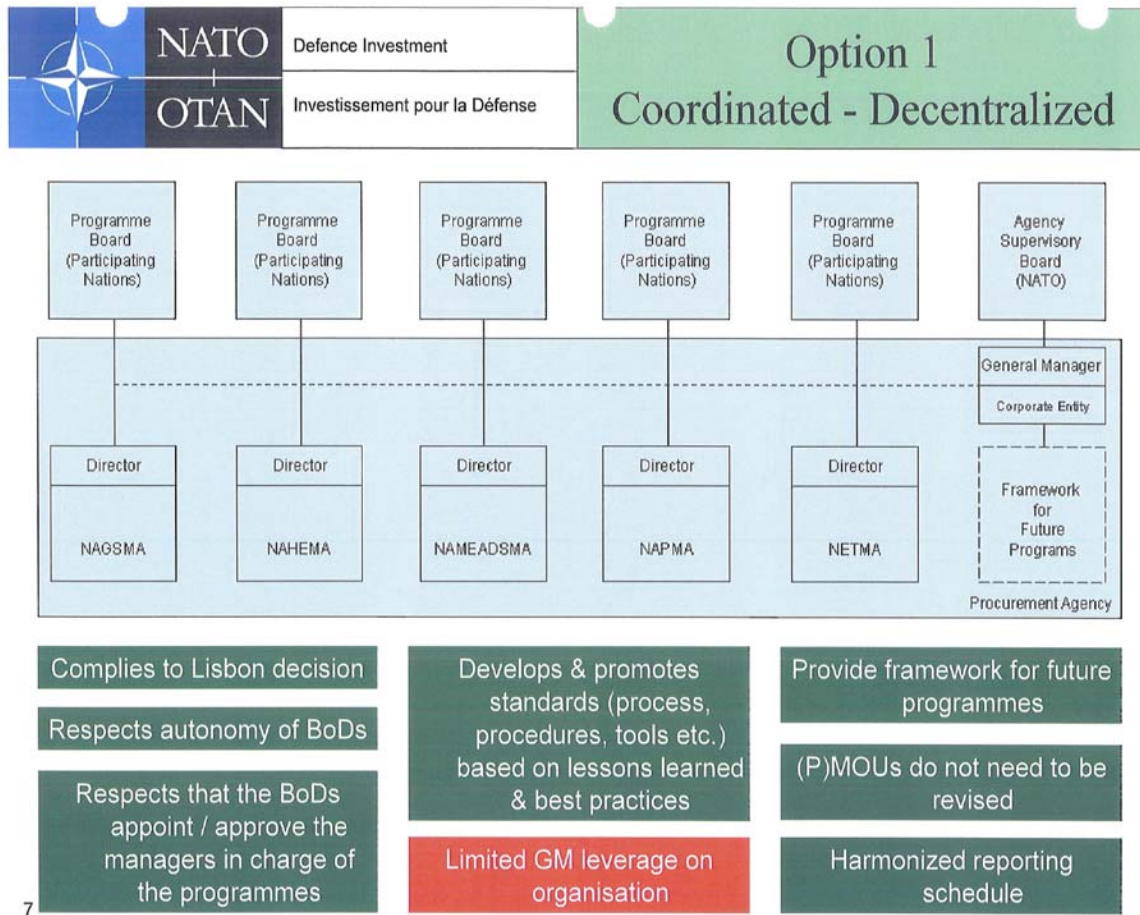
While the initial outline for business cases were nominally sufficient for making organizational decisions, it is clear that the results were incomplete, particularly with respect to cost and benefit analysis. Nevertheless, it is informative to review the structural options developed for the Procurement, Support, CIS, and Shared Services constructs.

### ***Procurement Agency***

The analysis team described three options: (1) a coordinated but decentralized approach where the Procurement General Manager has a corporate staff but program directors have unfettered access to program boards; (2) a centralized approach where all reporting from program directors is achieved through the office of the Procurement General Manager; and (3) a decentralized, uncoordinated approach where the Procurement General Manager is responsible for delivering Shared Services. The NART recommended the first option as the best balanced among the three options. This option is shown in Figure 6.







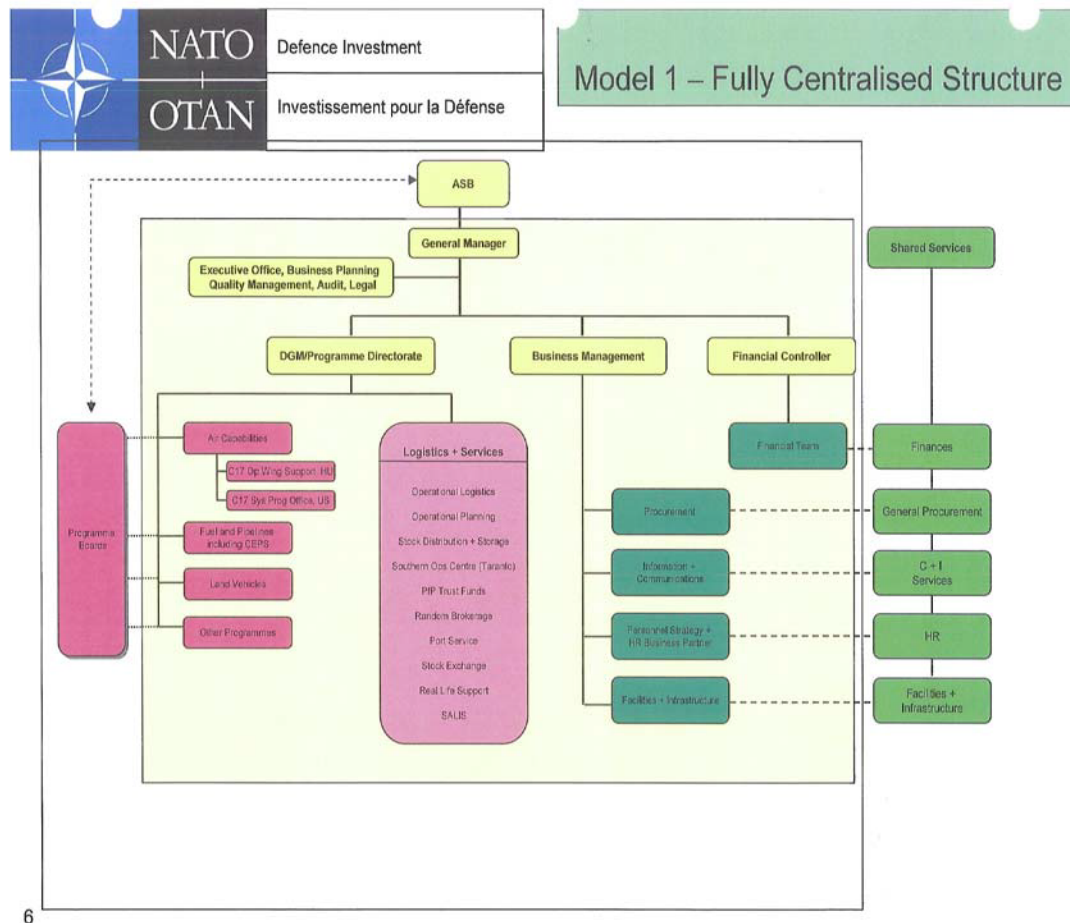
**Figure 6. Procurement Agency Option 1**  
(DPPC/AR, 2011f)

The Option 1 structure is in line with the previously articulated structures of Figures 1 and 4. The General Manager has a loose association with the programs and their boards while having a direct reporting responsibility to an ASB. The General Manager has limited leverage on the programs and makes very little change in their governance structures. While it complies with the Lisbon mandate, the structure resembles a fairly loose confederation of acquisition programs instead of the more defined governance structure articulated in Figure 4.

### **Support Agency**

The NART also recommended three options for the new Support Agency: (1) a new corporate framework integrating all support Agencies into newly-rationalized divisions, taking maximum advantage of the new Shared Services organization and incorporating best practices and all aspects of the Lisbon mandate; (2) a framework featuring a fully integrated executive level and decentralized operations and program activities (in this option, individual program operations and methods of delivering services remain the same but program oversight is achieved through a loose, federated framework); and (3) the "as is" situation, with no attempt to alter Agency structures. The new General Manager would have a staff,

but current reporting and authority lines would remain the same. For illustration, Option 1 is given in Figure 7.



**Figure 7. Support Agency Option 1**  
(DPPC/AR, 2011f)

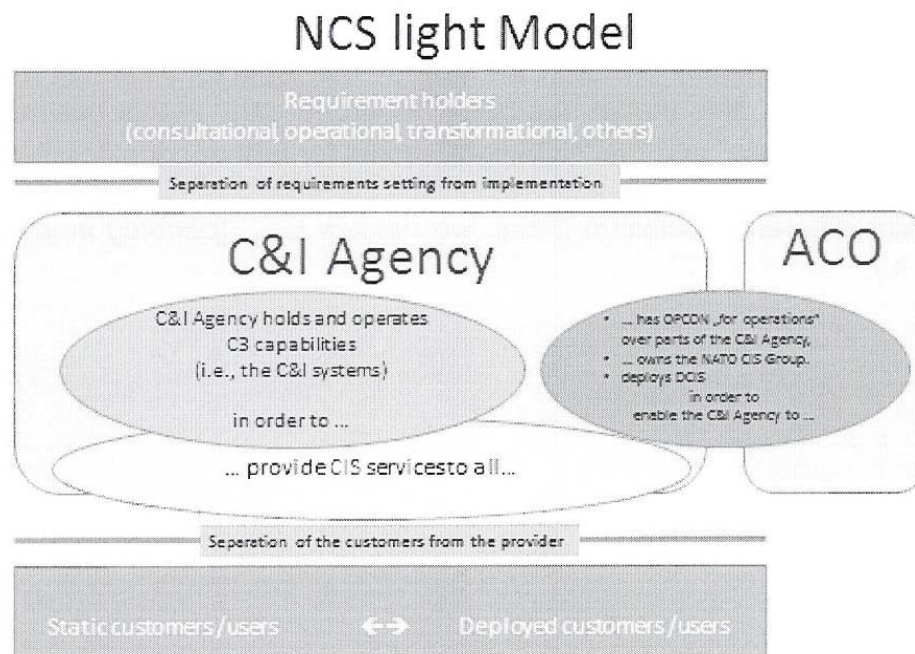
There was no recommendation in this source with respect to a preferred option. This option bears a strong resemblance to Figures 1 and 4. It shows perhaps a stronger line authority over the incorporated support Agencies and displays a clear division between line authority (the programs) and staff functions (business management and financial control). The General Manager has more direct oversight and reports to the NAC through an ASB.

### **CIS Agency**

The organizational options for the CIS were arguably the most complex because its domain spanned everything from headquarters IT services to battlefield communications. Its structure and staffing were closely intertwined with the parallel NCS reformation, which was addressing its geographic and personnel footprint. As a result, the CIS organization had the greatest number of stakeholders and elicited the most comments and concerns of all the Agency Reform efforts.

The NART developed three conceptual options that are decidedly less detailed than those of the Procurement and Support Agency models. In part, this would appear to be because of the complexity involved in generating detailed organizational charts without

consensus about the higher-level conceptual model. The options addressed are (1) an “NCS Light” model whereby a Communications and Intelligence (C&I) Agency holds and operates all command, control, and communications (C<sup>3</sup>) systems except for deployed communications systems that would be under the authority of Allied Command Operations (ACO); (2) a “Single Agency” model representing a completely rationalized and consolidated C<sup>3</sup> Agency; and (3) an “NCS Heavy” model where the operational command structure takes on more C<sup>3</sup> responsibilities and ownership with a proportionately increased( i.e., “heavier”) staffing requirement from the NCS. The source documentation used for this analysis does not record a specific recommendation, although the NART notes that the NCS Light model appears to represent the best balance of return on investment in structural change, differentiation of responsibilities, and acceptance by the main stakeholder, ACO (DPPC/AR, 2011c). The NCS Light model is shown in Figure 8.



**Figure 8. NCS Light Model for CIS Agency**  
(DPPC/AR, 2011b)

The CIS model is decidedly less defined than those of the Procurement and Support Agencies, reflecting the complexity of the CIS challenge. The CIS model is more conceptual, in part because of the number of organizations and functions involved. It is significant that at this stage of discussion, the model does not address the placement of programs so much as the intersection of stakeholders (i.e., NATO headquarters, requirements developers, and Allied Command Operations [ACO]) and the functions to be delivered.

### ***Office of Shared Services (OSS)***

Of the reform initiative examined by the NART, the concept of sharing support services (e.g., human resources, finance/accounting, general procurement, information technology, and facilities management) was perhaps the least contentious. In part, this

could be due to the fact that these functions had no powerful invested stakeholders and the recognition by all involved in Agency Reform that sharing services would have the most immediate impact on achieving cost efficiencies. Perhaps for these reasons, the OSS analysis was more complete in terms of implementation details. The articulated strategy would be to locate the Head of OSS under the Assistant Secretary General for Executive Management (ASG/EM) and develop coordination cells with the Procurement, Support, and CIS Agencies. The proposed governance structure is the same as the one shown in Figure 4, and there was no further articulation of organizational structure in the source documentation.

### ***Recognized Risks***

The NART identified a number of general risks, including lack of executive sponsorship, insufficient funding for transitioning to a new structure, and professional cultural resistance to the inevitable new processes.

### ***National Reactions***

Nations immediately assessed the business cases and noted that the format and content were not sufficient to render a clear decision on the final structure of Agency Reform. One nation commented on the initial business cases as follows:

The arguments for why a specific option is preferable are not clearly laid out and must be refined. The risk analysis must be presented in greater detail, particularly as concerns the legal aspects, and it must be included in the various options. (DPPC/AR, 2011d)

The above generally reflected the feelings of most nations. The decision sheet of the February 11, 2011, meeting of the DPPC/AR noted that the business cases needed “to be completed with a thorough financial analysis, including pros and cons for all options offered together with risks evaluation and mitigation measures to enable nations to take an informed decision” (DPPC/AR, 2011e).

### ***Report to Defense Ministers—March 2011 Meeting***

By February 2011 it was evident that the Agency Reform timetable sought by the Secretary General was slipping, due mainly to the sheer complexity of rationalizing and normalizing the functions and services of the 14 Agencies into an arbitrary three Agencies. Already there were major issues with legal frameworks and stakeholders in the Procurement and CIS Agency efforts, while continuity of service and uncertainty about the geographic footprint was a primary concern with the Support Agency effort. Shared Services appeared to be the least contentious of the reform initiatives because its strategy was to initiate small reforms and grow them to achieve the overall Shared Services concept. The hosting issue was also less contentious, since Shared Services would reside in the ASG/EM organization.

By this time, the original Agency Reform concepts had matured in response to stakeholder realities and desires. While there were three Agencies proposed (Procurement, Support, and CIS), supported by an OSS, there were additional organizational constructs to accommodate the unique situations of CIS, Intelligence Sharing, research and technology, and standardization. The report to Defense Ministers noted that key issues remain with regard to Agency governance, funding, transfer of functions, identification of shared services for the OSS, and the transition of legal frameworks for those programs established under unique international agreements.





The next section examines NATO's progress through the lens of strategy formation, strategic management, and organizational change.

## **Discussion**

The Agency Reform process at NATO continues, but at this point, there is sufficient documentation to examine the progress with some findings from research. The above narrative highlights many interesting themes on strategic change (e.g., the role of senior leadership, stakeholder management, and professional subcultures) but the following discussion will focus on the rationale for Agency Reform, the preferred structures developed by the NART, and commentary on strategy formation and strategic management.

### ***Rationale for Agency Reform***

The idea of Agency Reform is not new, but this instantiation developed in a very short time frame and articulated by the Secretary General in the middle of 2010. This is not in itself unusual. The DuPont Corporation, Standard Oil of New Jersey, and General Motors all initiated their seminal reorganizations at roughly the same time in the early 20<sup>th</sup> century (Chandler, 1962), in relatively short order. The rationale for their reorganizations was not so different than NATO's: rationalization, harmonization, and improved efficiency. The difference between Chandler's case studies and NATO's situation is influence of external factors. DuPont reorganized to better utilize plant capacity after the First World War. Standard Oil of New Jersey was grappling with the increased demand for gasoline and branching out into new products. General Motors comes closest to the NATO rationale in that it had to transform itself from a confederation of parts and sub-assembly suppliers to a more coherent structure.

Normally, the need for strategic change is brought about through a change in overall strategy or because of misalignment between the organization and its environment (Miller & Friesen, 1983). NATO's Agency Reform was not driven by any misalignment per se but was based on the desire for a more direct line of authority and reporting and reaping efficiencies through elimination of redundancies. The extant documentation cites no pressing rationale for Agency Reform; however, the rationale could be the implicit concern for finances stemming from the worldwide fiscal difficulties of 2008 and onward. NATO's strategic concept has undergone regular updating in response to a changing security environment (NATO, 2011). The NATO business structure of the Agencies has not received similar attention over the years, but that may be because of the relative fiscal stability of NATO until quite recently.

### ***Strategy Formation and Strategic Change Management***

Organizations usually have predictable preferences of strategy formation, often correlated with the size and structure of the organization. The literature on the relation between structure and strategy is extensive. Mintzberg's study on the NFB of Canada describes several strategies and organizational structures from the NFB's establishment in 1939 to 1975, noting that its preferred strategy formation over that time was one of emergence while its most effective structure was one of ad hoc work groups and project teams (an "adhocracy" [Mintzberg & McHugh, 1985]), indicating that strategies and organizational structures can and do change. In the performance dimension, there appears to be a relation between strategy and structure, although the causality is an open question. Based on complexity of the environment, use of rational and analytic tools, and the degree to which strategy formation is centralized, there appear to be 10 archetypes of successful



and trouble-prone business profiles (Miller & Friesen, 1977). All of these 10 archetypical configurations have the distinct elements of prescriptive strategy formulation (e.g., design, planning, entrepreneurial, and positioning) and descriptive strategy formation such as learning and contingency. Earlier research characterizes the strategy/structure/performance relation as one of adaptation of an organization's structure to implement a strategy while normalizing and rationalizing its administrative operations (Miles, Snow, Meyer, & Coleman, 1978). From this, Miles was able to develop the Defender, Prospector, Analyzer, and Reactor typologies of organizations. These represent different strategic approaches, which appear to correlate with organizational structures. Defender organizations often are mechanistic and defend certain market niches, while Prospector organizations tend to be more organic and focus on finding new niches. Analyzers often have a foot in each world, while Reactors simply react to the environment and have no set strategy.

NATO's existing size and structure, similar to a General Motors or DuPont, is very bureaucratic and mechanistic, which favors top-down strategic management initiatives, rationale, and the "Planning School" of strategy formation (Miller, 1986; Mintzberg, Ahlstrand, & Lampel, 1998). Using Miles' (1978) descriptive archetypes, it would appear that NATO displays a Defender approach, which is consistent with its large, entrenched structure. Large, mechanistic organizations such as NATO will often use a linear style of developing strategy, usually by articulating a goal and developing implementation plans for execution by the organization. Smaller companies, or those with a looser structure, may engage in a more interpretive approach, where the environment external to the organization may take on different meaning and significance to the array of stakeholders involved in strategy formation and strategic change. Other organizations may use an adaptive approach and develop their strategy by continuous organizational learning (Chaffee, 1985; Mintzberg et al., 1998; Mintzberg, 1978; Mintzberg et al., 1985).

NATO has clearly adopted a linear strategy for its Agency Reform, starting with a definitive set of goals and a distinct idea regarding the end state (NATO Secretary General Private Office, 2010). While not explicitly stated in the documentation, it is clear that the primary goal was to lower Agency costs and foster better accountability and control of the Agencies. It appears that these goals were developed almost exclusively by the Secretary General's staff with little initial consultation with key stakeholders, notably the senior leadership of the Agencies and the nations that selectively participate in some Agencies. The strategy formation approach was one of careful planning, initially in relative isolation and later with increasingly wider involvement with stakeholders. This last approach was corroborated in confidential, informal interviews with key participants; it became clear that the reform goals were generated almost exclusively from the Secretary General's Private Office, with little outside input (Interviewee 1, personal communication, February 2011; Interviewee 2, personal communication, March 2011).

This form of strategy formation can be problematic. Without significant support from key stakeholders and the target organizations, the success of reform efforts can be greatly diminished. An organization's leadership can certainly exercise strategic choice on strategy formation; however, such actions can quickly generate responses from significant political coalitions within an organization (Child, 1972). Strategies formed in the absence of stakeholder and coalition involvement during the early stages often run into significant implementation difficulties in the later stages (Dibb, 2005; Noble et al., 1999). Leadership will often craft strategic goals, or even whole strategies, from a narrow perspective that may preclude efficient execution by the rest of the organization (Piercy & Morgan, 1993).

Cespedes (1996) notes that schism between the marketing function and the rest of the organization can doom implementation from many quarters, through inertia, myopic



corporate vision, active resistance at the mid-management level, and different business processes and standards in the same organization. This phenomenon is not limited to marketing functions. The lack of coordination starts at the top of an organization when mission and vision statements are not communicated and carried down throughout the organization. Simply put, strategy formation and strategic management must be consistent with an organization's mission and vision for any chance of effective implementation (McDonald, 2006; Piercy et al., 1993; Smith, 2003; Weinstein, 2006; Wind, 1978; Wind & Robertson, 1983).

Another problematic aspect of this approach is the engagement of subcultures during strategic changes. This is an extension of Child's findings on how strategic choice at the top of an organization often requires strategic compromise with dominant coalitions within the organization itself, leading to a "satisficing" condition as leadership's goals are modulated by internal influences (Child, 1972). Research on the nature of these dominant coalitions indicates that they always exist in large organizations and are usually a function of professional affiliation, geography, ethnicities, and national cultures. Often these subcultures have influence and leverage that extend beyond organizational boundaries.

The organizational culture, and its component subcultures, needs to be considered because they provide much of the energy behind the internal forces already cited. The literature indicate that organizations of any significant size will subdivide into groups as new entrants seek to learn legitimate and acceptable behaviors in their new environment (Bloor & Dawson, 1994). Organizational sub-groupings appear to be inevitable and often fall along predictable lines such as production and support (Hofstede, Neuijen, Ohayv, & Sanders, 1990; Hofstede, 1998). In professional organizations, these sub-groupings are often bound by professional or work-related parameters (e.g., lawyers, engineers, or "middle management"). As such, they usually have norms, ethics, standards, and codes of conduct that bind them together and sometimes extend across organizational lines (Hansen, 1995; Hofstede et al., 1990; Marks & Scholarios, 2007). The organization's leadership depends on the subcultures because of the utility they bring; however, studies show that the commitment and alignment of the subcultures with the greater organizational goals can vary across the spectrum, from supportive to neutral to antithetical, even in an outwardly harmonious body (Denison & Mishra, 1995; Hansen, 1995; Jermier, Slocum, Fry, & Gaines, 1991; Lok, Westwood, & Crawford, 2005). In re-visiting Noble & Mokwa's (1999) study, for example, it was clear that middle managers, as a distinct subculture, were necessary for the success of a marketing implementation strategy.

NATO is an organization of subcultures of every type. The Agencies themselves are subcultures because of their organizational distance from NATO headquarters, developed over 60 years of evolution. Most nations are Alliance members, although a few are not. The varying array of nations represents significant subcultures and stakeholders. Professional subcultures are everywhere, from the development and procurement organizations such as NAGSMA and NAPMA to the purely logistic and functional organizations such as CEPMA and RTA.

### ***Analysis***

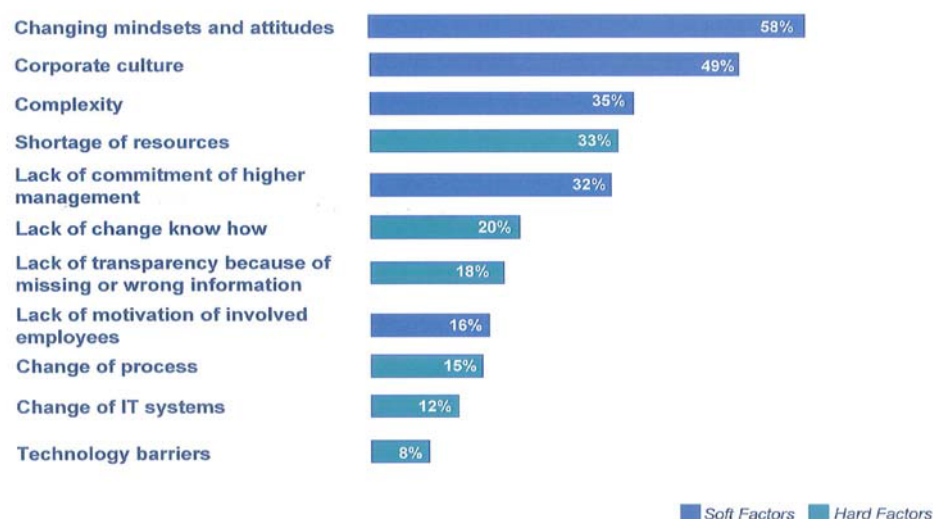
From the sources reviewed, it can be seen that the Agency Reform experience at NATO is consistent with empirical research. The process started with the most senior direction in the organization, and initial strategies were formed in relative isolation by the NART. As more stakeholders were exposed to the work in progress, there came significant discussion and somewhat late input as these same stakeholders learned more about the



NART's plans. Many stakeholders posed valid questions regarding the strategic goals and requested some analytic underpinning for reducing the number of Agencies from 14 to three. These business cases, which would have had more utility at the start of the process, were finally developed in February 2011, more than six months after the Secretary General articulated the Agency Reform initiative. It is significant to note that the initial drafts of the business cases list implementation risks that are consistent with the empirical work on strategic change management. Figure 9, excerpted from a NART working paper, highlights the main reasons for change failures in organizations.

## Barriers towards transformation (IBM study)

*Why many transformations fail? Because "soft" stuff is hard*



NATO UNCLASSIFIED

6

**Figure 9. Why Transformations Fail**  
(DPPC/AR, 2011a)

At some point in the Agency Reform process, it was clear that the significant change management issues were the social and organizational aspects—the “soft” issues—instead of the technical challenges of reorganizing information technology structures or lines of reporting and authority. Mindsets, attitudes, cultures, perseverance, and complexity are the main impediments to strategic change. This should not be too surprising. Strategy is the gyroscope of an organization, and its purpose is to keep an organization oriented to its broadest goals. This orientation molds attitudes and cultures. Strategic change is a major re-focusing of an organization and its essence is deciding what an organization will—and will not—do with its resources.

By this time, however, the distinct subcultures in the Agencies had mobilized to put forward alternative strategies. The strategic goals of reducing the number of Agencies from 14 to three and achieving 20% efficiencies was modified somewhat to a plan involving three large Agencies (Procurement, Support, and CIS), an office of Shared Services, and four



special cases involving unique functional areas. The overall goal of 20% savings across the new Agencies now appears to be a goal primarily invested in the OSS.

The business cases should have rationalized the strategy formation process, but because they were incomplete, they were not as useful as they could have been. At their meeting in March 2011, the Defense Ministers gave direction to develop more comprehensive business cases. At this point, their utility is significantly diminished, since they are no longer able to frame the strategic debate or contribute to strategy formation. Their most effective role now is one of confirmation and providing detail for implementation plans.

Table 4 discusses some of the key strategy items necessary for strategic change in an organization and a comparison between NATO Agency Reform and the empirical research in the literature.

**Table 4. NATO Agency Reform and Strategic Change Research**

Strategy Item	Function	NATO Agency Reform	Strategic Change Research
Business Case Analysis	Provides rationale and analytic underpinning for strategy formation and strategic change	Business cases developed late in the Agency Reform process	Ideally developed in advance of strategic goal formation
Strategic Goal Development	Develops the strategic goals for later implementation; represents major shift in strategy	Specific goals developed primarily by Secretary General, as informed by Defense and Foreign Ministers	Strategic goal development a collaborative activity with all stakeholders
Stakeholder Consultation	Involves stakeholders early in the strategy formation process; stakeholders are internal and external and come from all levels	Occurred relatively late in the process; specific goals and work toward implementation well along before substantive consultation	Occurs concurrent with developing strategic goals for maximum chance of successful implementation
Organizational Culture Impact	Significant internal stakeholder	Not considered	Should be included as a key stakeholder
Communication Approach	Communicates progress of strategic change with affected stakeholders	Communication occurs late in the process	Communication plan developed with stakeholders and implemented early in strategic change efforts
Implementation Planning	Translates strategy and goals into plans for organizational change	Occurring at the end of business case analysis; already being developed for OSS	Occurs after strategy formation and with input from stakeholders; includes metrics for monitoring effectiveness of change
Monitoring	Collection of metrics to determine effectiveness of change efforts	Planned for two years from completion of Agency Reform; metrics yet to be developed	Monitoring is regular and timely

From Table 4, it would appear that the NATO Agency Reform effort has executed the key strategy items but in a somewhat different order and at variance with research on successful strategic change efforts. Significant are the relatively late development of business cases and the relatively early articulation of the specific strategic goals in the



Agency Reform process. The order is reversed from what the research literature indicates in successful approaches. The role of the business cases is to inform the strategic goals, and the reversed order of these items effectively prevented that. By the time they made their appearance in February 2011, many stakeholders and cultural elements had already expressed considerable concern about Agency Reform and had forwarded their own agenda. Also significant is the relative isolation in which the strategic goals were formed. In contrast, the literature indicate that the most successfully implemented strategic goals are ones that are founded on the analytic findings of business cases and developed through extensive consultation with key stakeholders. The internal organizational cultural influences also appeared to have been misjudged in developing a new Agency strategy. Its effect is clear in that several organizations were successful in arguing for unique treatment in Agency Reform that changed the paradigm of all Agencies merging into one of three consolidated entities.

## **Conclusions**

The research question of this paper inquired as to NATO's strategic approach in pursuing Agency Reform. Despite the fact that it is a unique security organization involving 28 sovereign nations, its approach to reforming its procurement and acquisition infrastructure appears to be similar to industrial organizations of similar size. The strategic approach was one of top-down mandate, consistent with large mechanistic organizations structured in a multi-divisional format. The strategic process appeared to be one of essential strategy formation at the top leadership level, a period of socialization, and then engagement with stakeholders and development of business cases. Implementation is expected to follow in the coming year.

It is conceivable that this effort could have been conducted more efficiently had there been some consideration to the empirical research on strategic change management. This is not to say that NATO is failing to achieve its stated goals, but the executed process arguably has lengthened the task and perhaps unnecessarily introduced controversy and resistance among nations and stakeholders.

At this point, the attitudes and perceptions of stakeholders are not likely to change. Potential improvement in the process lies in the development of the implementation plans. As with the strategy formation, the involvement of stakeholders is key, and while this may have been a missed opportunity at the start of Agency Reform, it is not too late to affect the success of Agency Reform implementation. A critical recommendation is the development of metrics to gauge the effectiveness of Agency Reform. From the available documentation, this would appear to be a gap in the Agency Reform work plan and needs to be addressed well in advance of implementation.

## **Recommendations for Further Research**

This study examined the strategic foundations of NATO's Agency Reform efforts concurrent with the effort's evolution. A more complete story is available after Agency Reform has been implemented and its effectiveness evaluated. Most of the extant academic literature addresses commercial industry and their efforts at strategic change. There are relatively little on international organizations, and NATO's unique design as an international security arrangement may make it difficult to find completely applicable research. A future researcher would do well to augment NATO source documents with structured interviews of the NART and DPPC/AR principals, senior Agency management, and stakeholders in Allies' delegations to get a more complete view of Agency Reform.



## References

- Bloor, G., & Dawson, P. (1994). Understanding professional culture in organizational context. *Organization Studies (Walter De Gruyter GmbH & Co.KG.)*, 15(2), 275.
- Chaffee, E. E. (1985). Three models of strategy. *Academy of Management Review*, 10(1), 89–98.
- Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the industrial enterprise*. Cambridge, MA: The MIT Press.
- Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1–22.
- Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, 6(2), 204–223.
- Dibb, S. (2005). Market segmentation implementation barriers and how to overcome them. *Marketing Review*, 5(1), 13–30.
- DPPC(R)/AR. (2010a). *NATO agencies meeting at NATO headquarters on Tuesday, 5 October 2010 at 1530 hours* (Decision Sheet No. AC/281-DS[2010]0125[R]). NATO.
- DPPC(R)/AR. (2010b). *Outline - agency reform business case* (No. AC/281-N[2010]0111([R])). NATO.
- DPPC(R)/AR. (2010c). *Presentations - NATO agencies meeting at NATO headquarters on Tuesday, 26 October 2010 at 1000 hours* (Decision Sheet No. AC/281-DS[2010]0144-GRA[R]). NATO.
- DPPC(R)/AR. (2010d). *Recruiting and selecting the first general manager of the three new NATO agencies* (No. AC/281-N[2010]0110-REV2[R]). NATO.
- DPPC(R)/AR. (2010e). *A report for heads of state and government* (Staff Note No. AC/281-N[2010]0096-REV8[R]). NATO.
- DPPC(R)/AR. (2011a). *Briefing - NATO agencies meeting at NATO headquarters on Friday, 7 January 2011 at 0900 hours* (Decision Sheet No. AC/281-DS[2011]0001-GRA-ADD1). NATO.
- DPPC(R)/AR. (2011b). *Business case - C&I agency* (Staff Note No. AC/281-N[2011]0065[R]). NATO.
- DPPC(R)/AR. (2011c). *Initial business cases* (No. AC/281-N[2011]0036[R]). NATO.
- DPPC(R)/AR. (2011d). *Initial business cases - German comments* (Staff Note No. AC/281-N[2011]0048[R]). NATO.
- DPPC(R)/AR. (2011e). *NATO agencies meeting at NATO headquarters on Friday, 11 February 2011 at 0900 hours* (Decision Sheet No. AC/281-DS[2011]0024[R]). NATO.
- DPPC(R)/AR. (2011f). *Presentations made at the meeting held at NATO headquarters on Friday, 11 February 2011 at 0900 hours* (Decision Sheet No. AC/281-DS0024-GRA[R]). NATO.
- Hansen, C. D. (1995). Occupational cultures: Whose frame are we using? *Journal for Quality & Participation*, 18(3), 60.
- Hofstede, G. (1998). Identifying organizational subcultures: An empirical approach. *Journal of Management Studies*, 35(1), 1–12.

- Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across twenty cases. *Administrative Science Quarterly*, 35(2), 286–316.
- Jermier, J. M., Slocum, J. W., Jr., Fry, L. W., & Gaines, J. (1991). Organizational subcultures in a soft bureaucracy: Resistance behind the myth and facade of an official culture. *Organization Science*, 2(2), 170–194.
- Lok, P., Westwood, R., & Crawford, J. (2005). Perceptions of organisational subculture and their significance for organisational commitment. *Applied Psychology: An International Review*, 54(4), 490–514. doi:10.1111/j.1464-0597.2005.00222.x
- Marks, A., & Scholarios, D. (2007). Revisiting technical workers: Professional and organisational identities in the software industry. *New Technology, Work & Employment*, 22(2), 98–117. doi:10.1111/j.1468-005X.2007.00193.x
- McDonald, M. (2006). Strategic marketing planning: Theory and practice. *Marketing Review*, 6(4), 375–418.
- Miles, R. E., Snow, C. C., Meyer, A. D., Coleman, J., & Henry J. (1978). Organizational strategy, structure, and process. *Academy of Management Review*, 3(3), 546–562.
- Miller, D. (1986). Configurations of strategy and structure: Towards a synthesis. *Strategic Management Journal*, 7(3), 233–249.
- Miller, D., & Friesen, P. H. (1977). Strategy-making in context: Ten empirical archetypes. *Journal of Management Studies*, 14(3), 253–280.
- Miller, D., & Friesen, P. H. (1983). Strategy-making and environment: The third link. *Strategic Management Journal*, 4(3), 221–235.
- Mintzberg, H. (1978). Patterns in strategy formation. *Management Science*, 24(9), 934–948.
- Mintzberg, H. (1979). Patterns in strategy formation. *International Studies of Management & Organization*, 9(3), 67–86.
- Mintzberg, H., & McHugh, A. (1985). Strategy formation in an adhocracy. *Administrative Science Quarterly*, 30(2), 160–197.
- Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998). *Strategy safari—A guided tour through the wilds of strategic management*. New York, NY: Free Press.
- Mintzberg, H., & Waters, J. A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, 6(3), 257–272.
- NATO. (2011, April 3). A roadmap for the new strategic concept. Retrieved from NATO's New Strategic Concept website: <http://www.nato.int/strategic-concept/roadmap-strategic-concept.html>
- NATO Secretary General Private Office. (2010). *NATO reform—command structure and agency reform* (No. PO[2010]0081). NATO.
- Noble, C. H., & Mokwa, M. P. (1999). Implementing marketing strategies: Developing and testing a managerial theory. *Journal of Marketing*, 63(4), 57–73.
- Piercy, N. F., & Morgan, N. A. (1993). Strategic and operational market segmentation: A managerial analysis. *Journal of Strategic Marketing*, 1(2), 123.
- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York, NY: The Free Press.

- Smith, B. (2003). Success and failure in marketing strategy making: Results of an empirical study across medical markets. *International Journal of Medical Marketing*, 3(4), 287–315.
- Weinstein, A. (2006). A strategic framework for defining and segmenting markets. *Journal of Strategic Marketing*, 14(2), 115–127. doi:10.1080/09652540600659665
- Wind, Y. (1978). Issues and advances in segmentation research. *Journal of Marketing Research (JMR)*, 15(3), 317–337.
- Wind, Y., & Robertson, T. S. (1983). Marketing strategy: New directions for theory and research. *Journal of Marketing*, 47(2), 12.



# NATO Agency Reform



Gene E. Warner  
US Mission to NATO  
8<sup>TH</sup> Annual Acquisition Research Symposium  
Naval Postgraduate School  
Monterey, CA  
11-12 May 2011

Gene Warner  
+32-(0)493-240-355  
[gene.warner@mac.com](mailto:gene.warner@mac.com)

# Overview



- NATO's Strategic Change
- Strategic Change and Organizational Structure
- Methodology
- NATO's Current Agency Structure
- Current Reform Efforts
- Comparison With Strategic Change Research
- Conclusions and Recommendations



# NATO's Strategic Change



- Alliance has evolved since its founding in 1949
- Now numbers 28 nations
- Acquisition and Procurement relatively simple
  - Nations make voluntary contributions via Force Generation Process
  - Acquisition/Procurement handled by contributing nation
- First Acquisition Agencies established in early '60s
- Now number 14 Agencies
  - Employees over 6,000
  - Business volume of 10B Euro
  - Each Agency has unique governance and funding framework

Agency	Description	Business Function
Central European Pipeline Management Agency (CEPMA)	Manages petroleum pipelines for NATO use in central Europe	Support, Logistics
NATO Air Command and Control System Management Agency (NACMA)	Design, development, and deployment of next-generation NATO aircraft C2 system	Acquisition, Procurement
NATO Airborne Early Warning and Control Programme Agency (NAPMA)	Management of NATO airborne early warning aircraft and associated upgrades	Acquisition, Procurement, Support, Maintenance
NATO Alliance Ground Surveillance Management Agency (NAGSMA)	Development of NATO unmanned intelligence, surveillance, and reconnaissance aircraft	Acquisition, Procurement
NATO Battlefield Information, Collection and Exploitation System (BICES)	Development and procurement of battlefield intelligence networks	Acquisition, Procurement
NATO Communication and Information Systems Services Agency (NCSA)	Support and maintenance of deployed networks	Support, maintenance
NATO Medium Extended Air Defence System Agency (NAMEADSMA)	Development, acquisition, and procurement of ground-based medium-range air defense system	Acquisition, Procurement
NATO Eurofighter and Tornado Management Agency (NETMA)	Management of Eurofighter and Tornado aircraft within NATO	Support, Maintenance
NATO Consultation, Command and Control Agency (NC3A)	Development, procurement, and technical research in command and control systems	Research, Acquisition, Procurement, Support
NATO Helicopter Management Agency (NAHEMA)	Management of NATO helicopter assets	Maintenance, Logistics
NATO Maintenance and Supply Agency (NAMSA)	Logistic support to NATO systems	Logistics
NATO Airlift Management Agency (NAMA)	Management of heavy fixed-wing airlift capability	Maintenance, Logistics
NATO Standardization Agency (NSA)	Standards development	Support
Research & Technology Agency (RTA)	Harmonization of Allies research and technology efforts	Research

# Strategic Change and Organization Structure



- Strategy and structure are linked (Chandler, 1962)
  - Organizations re-structure to accommodate strategy
  - Converse can happen but not as common
- Organizations change strategy in response to internal and external forces (Porter, 1980)
  - Function of suppliers, customers, market rivalry, substitutes, and barriers to market entry
- Strategic choices are critical (Child, 1972)
  - Leadership must deal with dominant coalitions in the organization
- Strategy & structure change sporadically in successful organizations (Mintzberg, 1978, 1985)
  - Function of strategy is to keep organization on course
  - Strategic change is necessary for organizational success

Author, Year	Domain	Methodology	Research Type	Paradigm
<b>Chandler, 1962</b>	<ul style="list-style-type: none"> <li>• Strategy Formation</li> <li>• Strategic Management</li> <li>• Organizational development</li> </ul>	Longitudinal Study	Qualitative & Quantitative	Structure dictates strategy and vice-versa
<b>Child, 1972</b>	<ul style="list-style-type: none"> <li>• Strategy Formation</li> <li>• Organizational Development</li> </ul>	Literature review	Meta-Study of existing literature	Strategy as conscious choice vice reaction to environment
<b>Mintzberg, 1978</b>	<ul style="list-style-type: none"> <li>• Strategy Formation</li> <li>• Strategic Management</li> <li>• Organizational development</li> </ul>	Longitudinal Study	Qualitative & Quantitative	Strategy as organizational learning
<b>Porter, 1980</b>	<ul style="list-style-type: none"> <li>• Strategy Formation</li> <li>• Strategic Management</li> <li>• Organizational Development</li> </ul>	Literature Review	Meta-Study of existing literature	Strategy as position within a marketplace
<b>Mintzberg, 1985</b>	<ul style="list-style-type: none"> <li>• Strategy Formation</li> <li>• Strategic Management</li> </ul>	Longitudinal Study	Primarily Quantitative	Strategic change as a cyclic occurrence

# Methodology



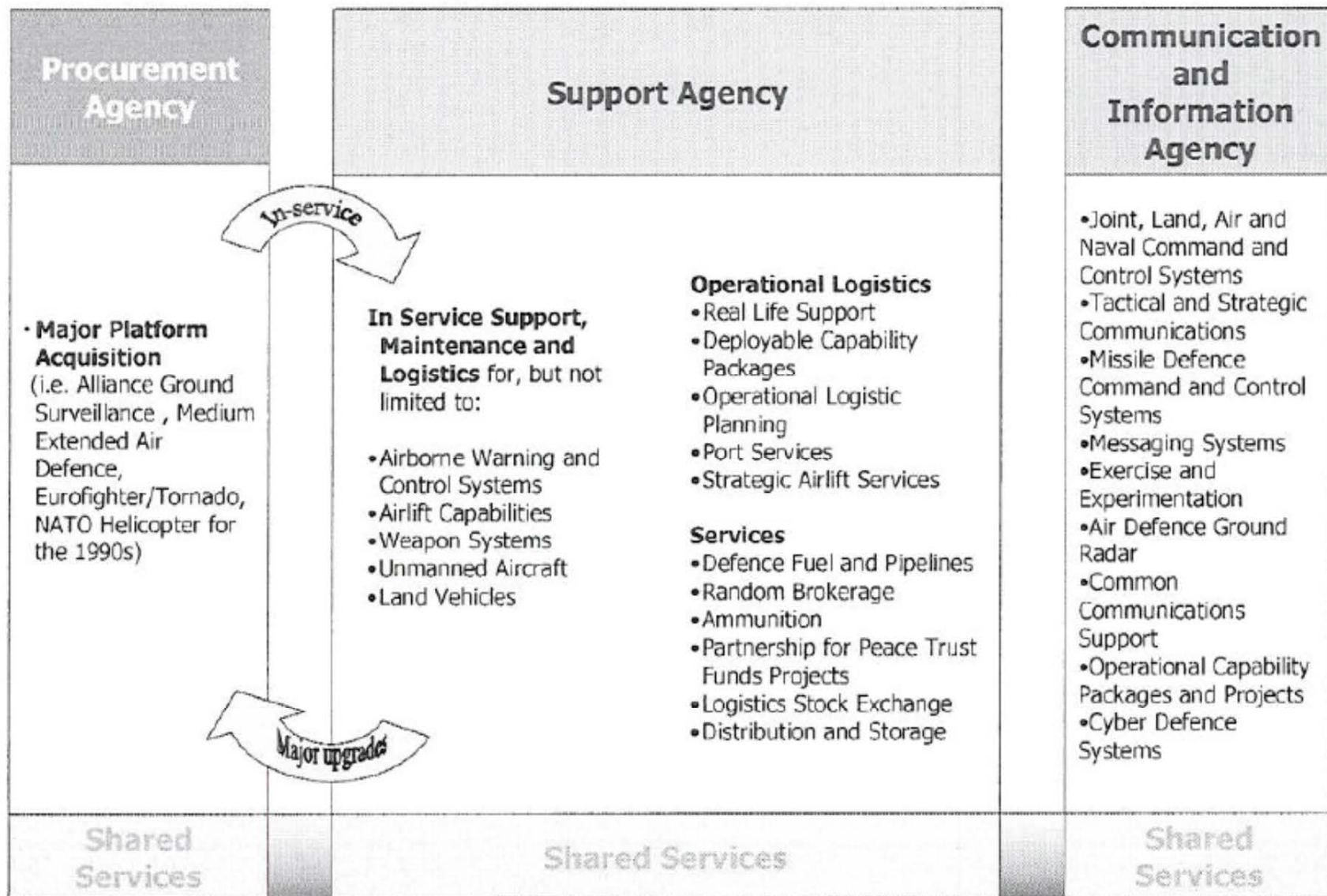
- Review of research literature
- Collection of NATO documents and decisions
- Selected interviews
- Comparison of NATO's efforts with research literature
  - Strategy formation
  - Strategic change management
  - Organizational change and implementation
- Limitations
  - Agency Reform is evolving
  - Process is not complete
  - Data selected not comprehensive

# NATO Agency Reform Summary (June 2010 - Lisbon Summit November 2010)



- SYG describes Agency Reform goals
  - Increased efficiency, 20% savings in cost, increased transparency and governance
  - Consolidate 14 Agencies into 3
    - ✦ Procurement, Support, Comms and Information Systems
    - ✦ Common governance structure
    - ✦ Agencies direct report to North Atlantic Council (NAC)
- NATO Agency Reform Team (NART) formed
  - Volunteers from delegations
  - Driven by SYG private office and international staff
  - Agencies initially not consulted or participating



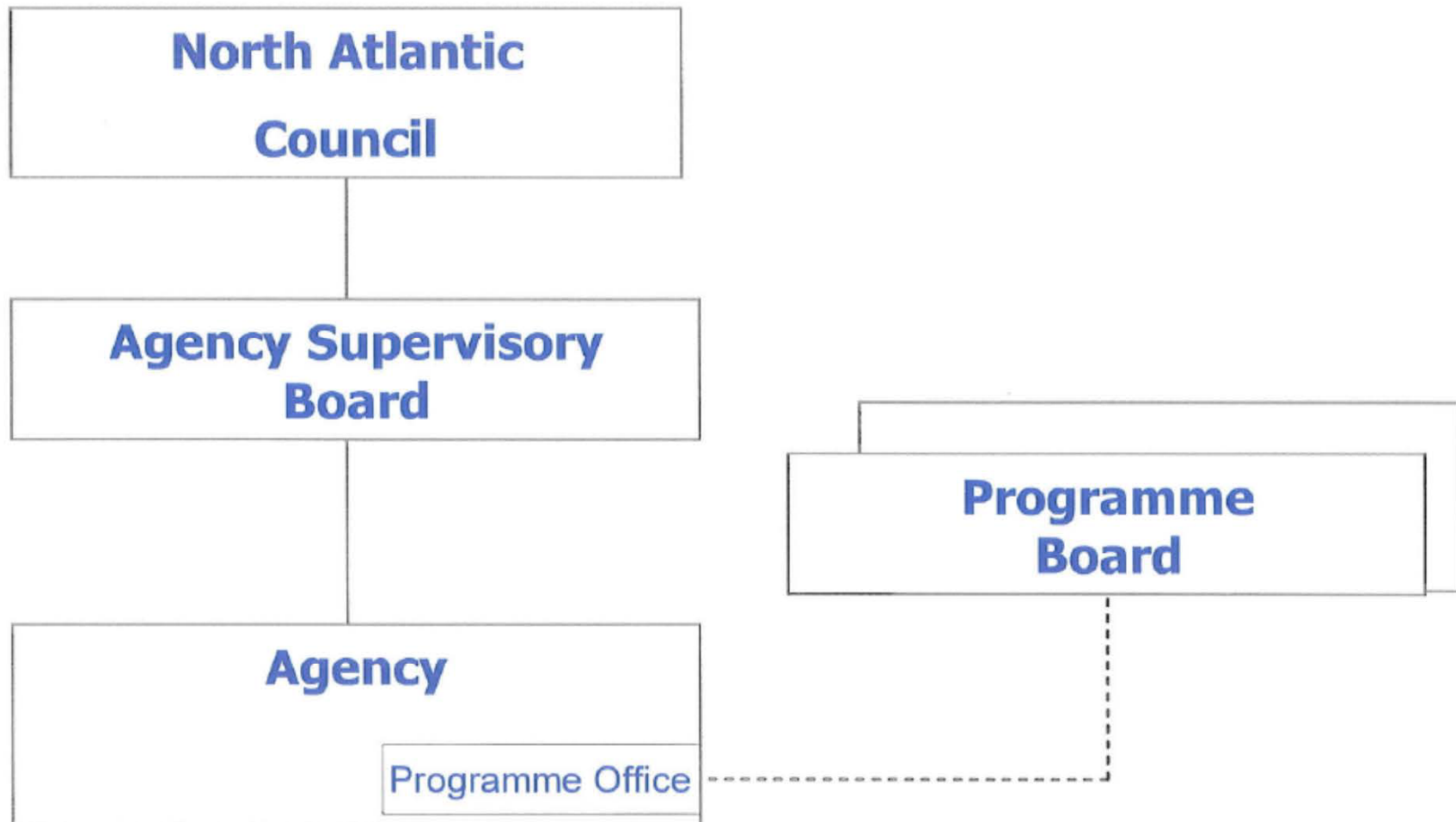


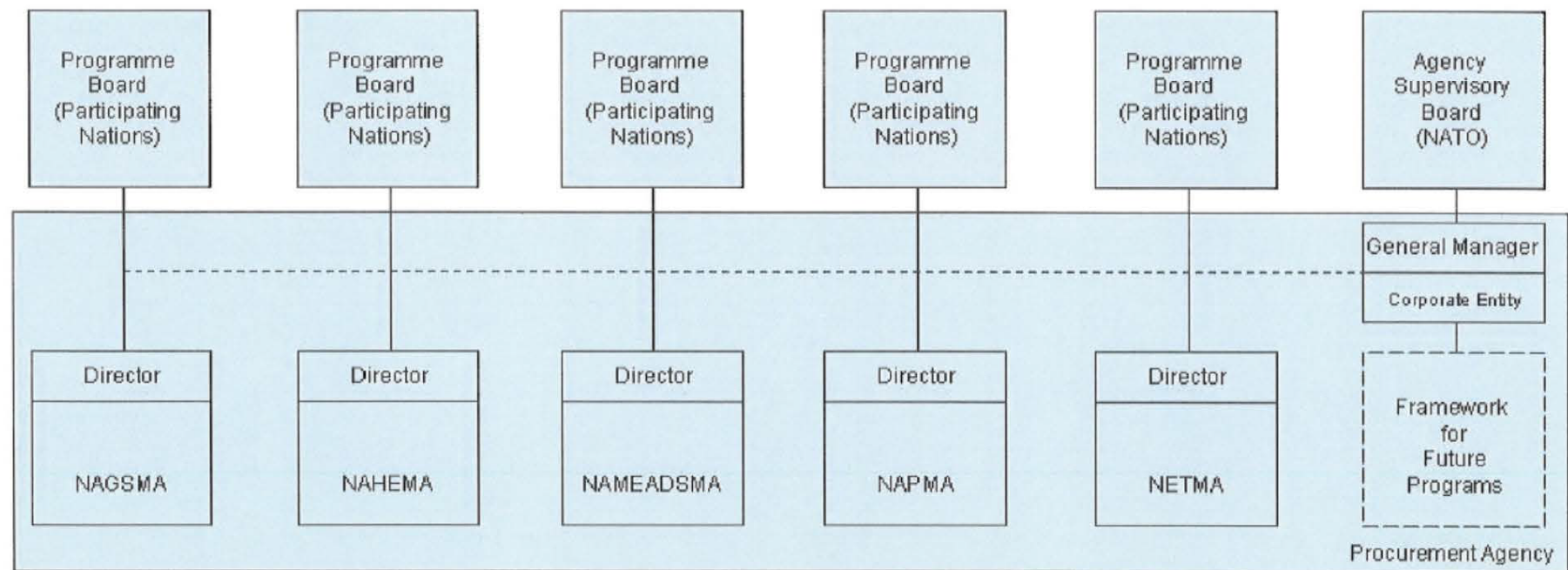
# NATO Agency Reform Summary

## (Post-Lisbon / November 2010 - March 2011)



- **Lisbon Report Summary**
  - Significant discussions on Agency governance
  - Not all nations participated in all Agencies
- **Governance structure could not be agreed**
  - No basis for Agency reform
  - Business cases required
- **Reduction of 14 Agencies to 3 may need reexamination**
  - Some Agencies represent “Special Cases”
  - Research & Technology, Communication and Information Systems





Complies to Lisbon decision

Respects autonomy of BoDs

Respects that the BoDs  
appoint / approve the  
managers in charge of  
the programmes

Develops & promotes  
standards (process,  
procedures, tools etc.)  
based on lessons learned  
& best practices

Limited GM leverage on  
organisation

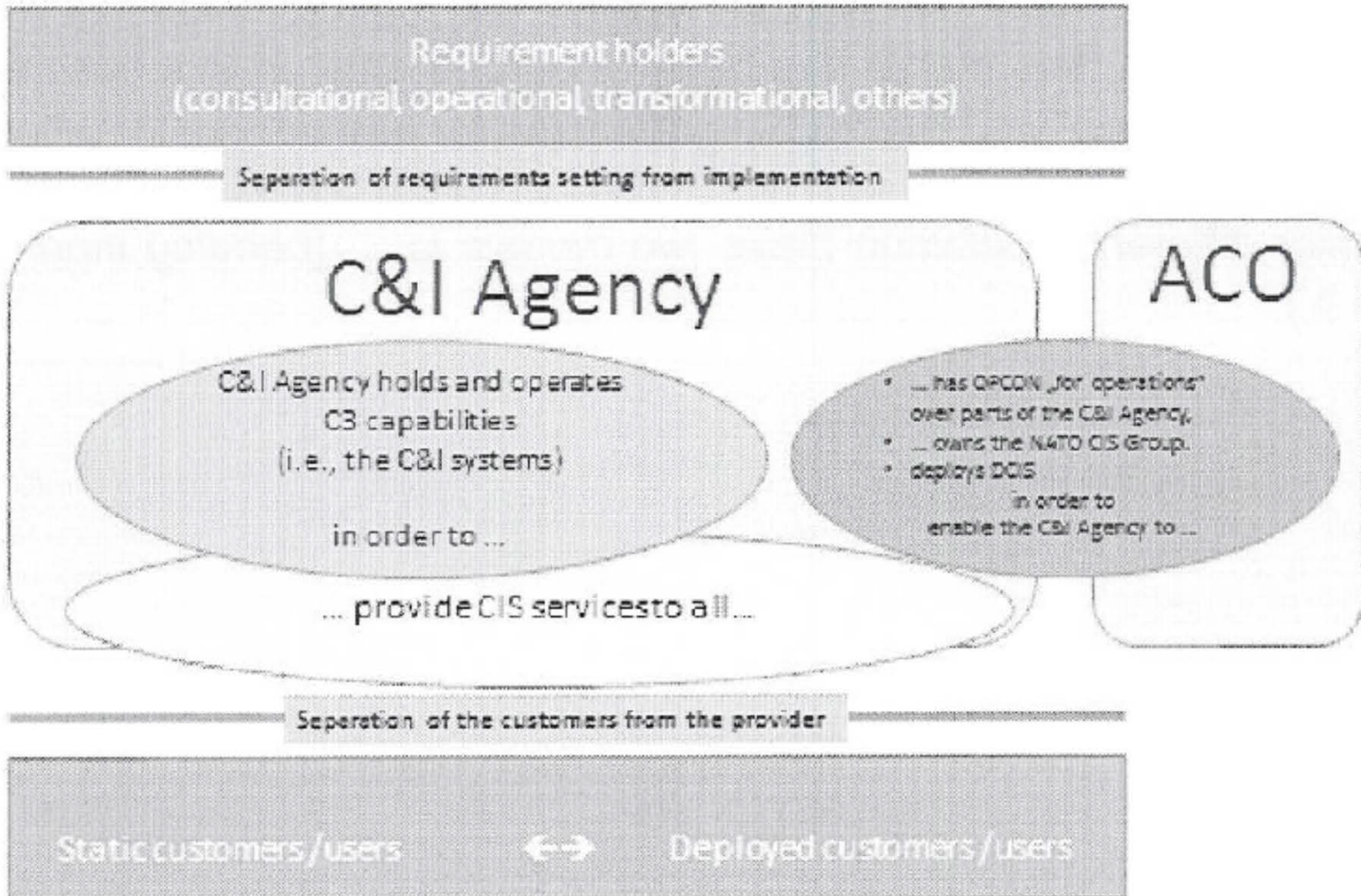
Provide framework for future  
programmes

(P)MOUs do not need to be  
revised

Harmonized reporting  
schedule



# NCS light Model



# NATO Agency Reform Summary

## (Report to Defense Ministers / March 2011)



- Agency Reform more complicated than originally thought
- Significant issues
  - Inadequate business cases
  - Rationalization of functions while maintaining equities
  - Interaction of stakeholders (nations, Agencies)
  - Estimation of savings => not as much as envisioned
- Emergent resistance to change
- Emergent issues with respect to footprint, funding



# NATO's Agency Reform Strategy Approach



- Start with strategic goals
  - 14 Agencies to 3
  - 20% savings
  - Better accountability to NAC
- Develop strategy with small team (NART)
- Develop implementation timeline
- Communicate strategic change plan to nations
- Implement Agencies transformation

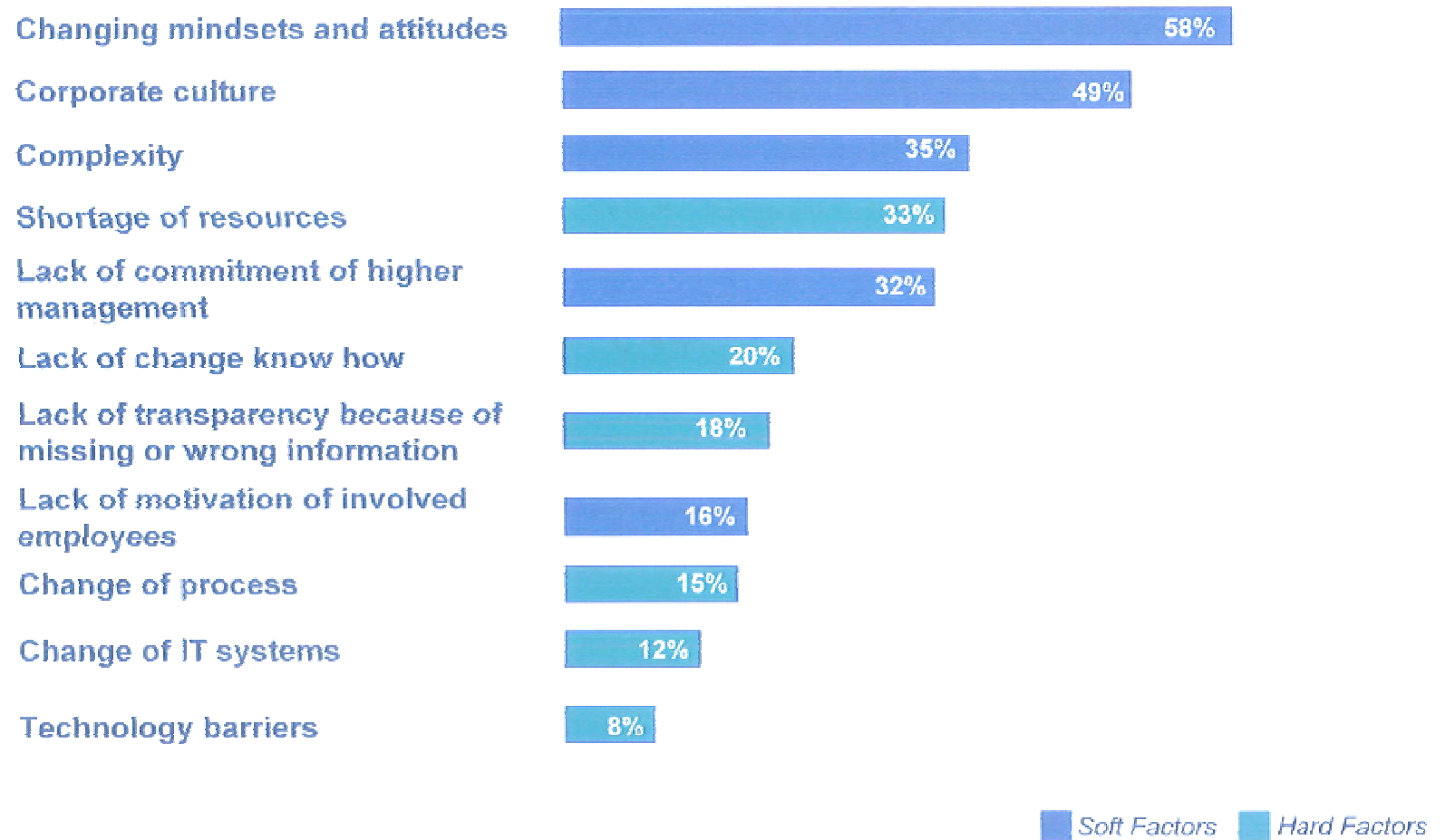
# NATO Reform Strategy & Research Literature Comparison



- **Linear strategy typical for NATO's size and structure**
  - Representative of "Planning" school of strategy formation
  - Driven from the top down
- **Strategy developed in isolation**
  - Results in significant resistance within organization
  - Implementation prospects are usually poor
- **Strategic change driver is absent**
  - "Why are we doing this? What is the problem?"
  - Strategic goal articulated without analytic bases
  - Strategic change requires alignment with driving forces
  - Alignment required for stakeholder ownership of strategic change
- **Equities not addressed in strategy formation**
  - Agencies are distinct subcultures in NATO
  - Governance equities not addressed until processes was well advanced

Strategy Item	Function	NATO Agency Reform	Strategic Change Research
<b>Business Case Analysis</b>	Provides rationale and analytic underpinning for strategy formation and strategic change	Business cases developed late in the Agency Reform process	Ideally developed in advance of strategic goal formation
<b>Strategic Goal Development</b>	Develops the strategic goals for later implementation; represents major shift in strategy	Specific goals developed primarily by Secretary General, as informed by Defense and Foreign Ministers	Strategic goal development a collaborative activity with all stakeholders
<b>Stakeholder Consultation</b>	Involves stakeholders early in the strategy formation process; stakeholders are internal and external and come from all levels	Occurred relatively late in the process; specific goals and work toward implementation well along before substantive consultation	Occurs concurrent with developing strategic goals for maximum chance of successful implementation
<b>Organizational Culture Impact</b>	Significant internal stakeholder	Not considered	Should be included as a key stakeholder
<b>Communication Approach</b>	Communicates progress of strategic change with affected stakeholders	Communication occurs late in the process	Communication plan developed with stakeholders and implemented early in strategic change efforts
<b>Implementation Planning</b>	Translates strategy and goals into plans for organizational change	Occurring at the end of business case analysis; already being developed for OSS	Occurs after strategy formation and with input from stakeholders; includes metrics for monitoring effectiveness of change
<b>Monitoring</b>	Collection of metrics to determine effectiveness of change efforts	Planned for two years from completion of Agency Reform; metrics yet to be developed	Monitoring is regular and timely

*Why many transformations fail? Because "soft" stuff is hard*



# Analytic Conclusions & Recommendations



- **Identify Strategic Drivers**
  - NATO => identified strategic goal
  - Need to develop robust business cases
  - Agency reform lost momentum without well-articulated strategic context
- **Include stakeholders and their equities early**
  - Agencies not brought in until very late
  - Equities discovered concurrent with implementation planning
- **Allow for organizational learning and emergent strategy development**
  - NATO approach was top down
  - Precluded Agency lessons learned and their application
- **Need diverse metrics for robust strategic change**
  - Critical for measuring change progress
  - NATO identified cost savings and Agency reduction but little else
  - Measures of merit and metrics needed to work through strategy development and implementation plan

# Way Ahead for NATO Agency Reform



- NATO can still move forward with Agency Reform but certain items will have to be addressed:
  - Review and improve business cases
  - Build the strategic basis for Agency Reform
  - Communicate better with stakeholders
  - Instill ownership of strategic change with Agencies